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Implications on Educational Management During the COVID-19 Pandemic

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Abstract

Education sector faced a significant transition recently, shifting from face-to-face classes to online classes due to the unprecedented COVID-19 pandemic. The pandemic's consequences affected teaching and learning and negatively influenced students' psychological well-being. This study aimed to explore the pandemic's impact on undergraduate students' academic stress, especially as related to their academic performance. Furthermore, the students' coping strategies during the pandemic, if any, were investigated. The researcher used a mixed-method approach, and surveyed 191 participants from the College of Education (COE) and students from other colleges enrolled in elective courses in the COE in one selected university in the UAE. The qualitative data was collected through a focus group discussion with seven COE undergraduate students doing their internship. The key findings showed that the xenophobia factor (the fear of strangers) causes the highest stress levels, and students reported that workload and time constraint factors were top stressors. Also, A-range students (students with a GPA of 3.7 and above) were significantly less stressed than B-range students (GPA of 2.7–3.3). First-year students were significantly more stressed than second-year, third-year, and fourth-year students. It was found that internship students expressed their stress and anxiety due to the change to online education caused by the pandemic. Single site focus was a key limitation of the study and it was recommended to increase the number of sites and samples. In conclusion, this study helped educational leadership and psychologists to better understand students' needs and create innovative educational platforms.

Keywords: Academic Stress, Academic performance, COVID-19, Leadership, Educational Management, Online Education

Introduction

Crisis periods are identified as high-stress events due to the significant consequences they cause. These events can be unpredictable, and people react differently to them. Some people adapt highly or quickly to a specific situation, and others might adapt slowly. However, if the event is uncontrollable and uncertain, then adapting can be more difficult. Moreover, by the end of December 2019, an unpredictable virus appeared, causing widespread fear and panic. The virus started in Wuhan City in China, was identified as COVID-19, and spread worldwide since then. The virus started spreading worldwide, particularly in Iran, Europe, and the United States (Sahu 2020). The spread of the virus was out of control in some areas, and some hospitals could not handle such a massive number of cases whereas other hospitals in other countries such as the United Arab Emirates (UAE) managed to control the virus. Everything had to be sanitized to prevent the virus from spreading. The UAE banned people from going out at specific times as the roads and public areas were sanitized during these slots (Moawad 2020).

The spread of COVID-19 led to significant changes in people's lives, particularly in terms of education. Many countries, including the UAE, decided to shift from face-to-face classes to online lectures using different platforms (MOE 2020). Furthermore, the sudden shift in education caused panic and anxiety because all stakeholders at schools and universities, including teachers and students, were not prepared. As the cases of infection and death kept

increasing, the UAE government took the decision to limit physical contact by directing universities and schools to switch to online teaching and learning. Amidst the chaos caused by the pandemic and restrictions in carrying out their daily activities, schools' switch to online education caused pressure on students and educational institutions (Hussein et al. 2020). The stress level increased and influenced students' mental health and higher education at the undergraduate level. This period especially is a time of natural change for students toward adulthood and career life after university.

Hussein et al. (2020) recommended in their study to focus on students' wellbeing and psychological concern. Therefore, the current study added to the literature and examined the idea of understanding students' needs to achieve high academic performance. Moreover, Almuraqab (2020) noted that the pandemic had negative impact on students learning in the UAE although the majority preferred distance learning. The UAE had to shift the education to be online for schools and universities. The novel online platforms were an obstacle for many students during the pandemic (Adnan & Anwar 2020; Wangdi, Dema & Chogyel 2021). Within this context the current study is important to the field of psychology and the UAE. This study added to the existing literature, as there were not enough studies on COVID-19 and academic stress. Psychologists and educators will benefit from the study in improving online education in case of future crises and be able to support students who might be suffering from psychological distress. Therefore, to improve the online education,

this research gives the opportunity to get feedback from the students. The main purpose of this study **was to understand if COVID-19 pandemic has an impact on academic stress, particularly their academic performance**. Thus, this study aimed:

- To investigate the pandemic's impact on students' stress and anxiety levels; and academic performance.
- To identify main students' stressors.
- To investigate the students' perceptions of the pandemic and their coping techniques.

As such, this paper focused on the areas of academic stress related to COVID-19's influence on academic performance including exams, assignments, lecture time, teaching platforms, internet, interpersonal relationships (parents, teachers, and friends), and uncertainty (Moawad 2020). It also addressed psychological aspect such as anxiety types, academic pressure, and academic performance in an online environment. The study also investigated the factors in academic stress inventory used in the study, including academic self-perception, perceptions of workload, pressure to perform, and time restraints (Bedewy and Gabriel 2015). Moreover, the study explored the COVID-19 stress inventory's factors used, including COVID danger and contamination, COVID's socioeconomic consequences, COVID-related xenophobia, COVID-related traumatic stress, and COVID-related compulsive checking (Taylor et al. 2020). Finally, the study examined undergraduate students' experiences with and perceptions about dealing with these

stressors. The main question in the study in relation to the objectives was: **Does COVID-19 have an impact on academic stress?** There were four specific questions to meet the research objectives:

1. How do anxiety types and academic pressure in an online environment influence the student academic performance?
2. What areas of academic stress have highest stress levels, including academic self-perception, perceptions of workload, pressure to perform, and time restraints (Bedewy and Gabriel 2015)?
3. What areas of COVID-19 stress inventory have highest stress levels, including COVID danger and contamination, COVID's socioeconomic consequences, COVID-related xenophobia, COVID-related traumatic stress, and COVID-related compulsive checking (Taylor et al. 2020)?
4. How did participants overcome their challenges during the COVID-19 pandemic?

As mentioned above, the study's research questions were divided into two categories, including the main question and specific questions. The main question focused on the purpose of the research, including investigating the impact of COVID-19 on academic stress and performance. The specific questions were related in-depth to the study purpose, and they were linked directly to the instruments used in the study, including the academic stress inventory and CSS (Bedewy and Gabriel 2015; Taylor et al. 2020). This research investigated if the COVID-19 pandemic had a direct influence on academic stress or if there was more than just a pandemic through the main question. The specific questions

highlighted other possibilities of stressors around the pandemic. For example, they targeted online education, workload, time restraints, assessments, xenophobia, and traumatic stress. The sub-questions combined both the academic and psychological aspects of students to answer the main question.

Literature Review

The theoretical models informing this study are the cognitive-mediational theory, General Adaptation Syndrome (GAS), academic self-efficacy, internal attribution of failure, self-determination theory (SDT), well-being theory, and Maslow's hierarchy of needs. These theories explain stress and anxiety in terms of challenging periods, and they can be divided into external and internal factors.

Humans' appraisal of certain stimuli can predict stress because emotions and cognitions influence individuals. The cognitive-motivational theory is all about the relationship between thoughts, feelings, and human interpretations of stimuli, an object, a situation, and an event. Richard Lazarus (1922–2002) an American psychologist who developed this model to explain stress. According to the theory, two appraisals could occur in the presence of a stressor. One of them is a challenging appraisal, and the other one is a threat. Moreover, when someone takes the stressor as a challenger, they can overcome the challenge and have personal growth, whereas if it was appraised as a threat, it could lead to negative

consequences. However, it is essential to understand that the threat can be low and high, depending on the second appraisal. If an individual feels a lack of control, it might lead to a high threat, and the opposite appraisal can lead to low threat (Lazarus 1991). Therefore, stress can also depend on how people interpret events and situations; in the case of the pandemic, it can lead to high, low, or no stress depending on the students' interpretations.

Stress can also develop because of internal factors depending on how a person views, attributes, and behaves in certain situations, particularly crisis events, such as the pandemic in this study. Different theories were developed to explain the psychology of humans toward stress and resilience. The GAS explained the biological changes that occur in someone's body due to a stressor. According to Selye (1950), GAS explained that individuals go through three stages—alarm, resistance, and exhaustion—when they face something stressful. Resistance to stress can be very low, especially when suppressing it takes a long time. Therefore, early intervention in stressful situations is essential to prevent serious health and mental issues in later stages (Selye 1950). The coronavirus pandemic influenced the world since December 2019. This prolonged period affected individuals and students with their academic lives. Therefore, before getting exhausted and mentally and physically influenced, early intervention has to occur from the schools and universities to protect the students.

Moreover, if a student believes in themselves that they can do a specific task successfully,

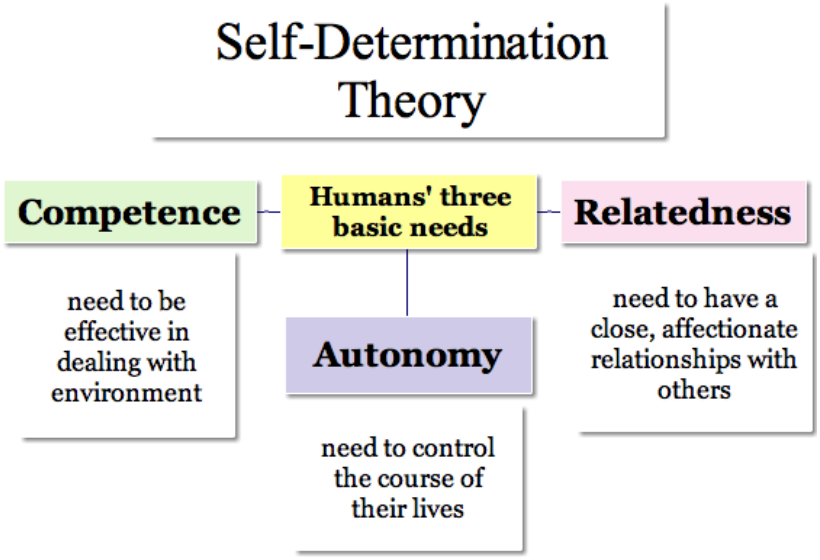
then it means that they have a high self-efficacy (Bandura 1977). Another student who did not believe in themselves would have a low self-efficacy. Self-efficacy is fundamentally related to academic stress because the more students have higher self-efficacy, the less stressed they are. The academic self-efficacy theory was developed and grounded from the general self-efficacy theory by Bandura (1977). It is essential to note that there is a difference between self-efficacy and self-esteem because self-efficacy is about intended outcomes and task evaluation, whereas self-esteem is more self-evaluation (Colman 2009). It is essential to understand that motivation can be both internal and external. Over the last 40 years, a theory of motivation was developed in which some people are motivated internally. Deci and Ryan (2012) developed the SDT, and this theory mainly focused on suggesting that internal motivation drives human beings to meet their needs and goals. There are three crucial aspects of SDT that individuals require to be motivated and happy: autonomy, competence, and relatedness (Gagné 2014). When relating SDT to education, first, it is critical for students to be independent and autonomous and for their rights and needs to be met. When teachers trust them and listen to what they say, it gives them a sense of autonomy that their voices are heard and matter. While SDT receives much support in that the theory can be useful and even generalized cross-culturally (Jang et al. 2009), it also receives some criticism.

SDT focused primarily on intrinsic motivation and claims that extrinsic motivation, which depends on a materialistic rewarding system, makes people have a low SDT and interferes

with people's decisions. The theory claimed that human beings tend to develop their personal growth psychologically (Markland et al. 2005). Human beings are very complex, and the explanations for how one behaves cannot be generalized. Each individual can be motivated differently, and motivation can affect people internally, regardless of whether the motivation is internal or external. Motivation can be more than just intrinsic and extrinsic because praise can motivate a student, but classifying it as only internal or external is quite ambiguous.

Praise can be a direct motivation since words can directly motivate others and affect them, moving them to work harder. However, motivational praise happens when the word makes sense for the person. Based on the researcher's view, SDT claimed that extrinsic motivation makes someone be controlled and focused only on the material given. However, when that material makes sense to that person and makes him/her feel good about themselves, this type of motivation will also be influential. Teachers can motivate students extrinsically, and students will determine if the reward is worth the effort (Wilson & Corpus 2001). Thus, it is understandable that regardless of the motivational type, it is highly influential in the student's well-being and mental health when it makes sense to them. **Figure 1** demonstrates the SDT.

Figure 1: Self-Determination Theory (SDT) (Ackerman 2021)



Seligman (2018) is the founder of the well-being theory, which he named the PERMA model because it consists of five main elements of happiness. The five cores are positive emotion, engagement, relationships, meaning, and accomplishments. This happiness theory explained that positive emotion has a significant influence and improvement on human health, life, and relationships. Evidence from the literature showed that positive psychology influences college students' life adjustment (Umucu 2020). Furthermore, there are many different types of positive emotions, including joy, celebration, appreciation, kindness, and empathy. These emotions cause happiness, and humans feel them due to different events and situations. The second core of happiness is engagement; being engaged

in some activity leads to enjoyment of it. The third core of the theory is relationships. It has been stated that forming a positive connection with other people can result in healthy well-being. The fourth core is meaning. This core is fundamental because time is essential, and performing meaningful activities can lead to a life purpose for that person, leading to life satisfaction. The last core is accomplishing and achieving something that a person desires, leading that person to be content and happy (Seligman 2018). This theory can be applied to different parts of life; for example, students can have a less stressful academic life during crisis events by focusing on positive emotions, being engaged, having positive relationships, developing their life purpose, and feeling accomplished. In light of the reviewed theories, it is important to assess the findings from current research addressing academic stress and anxiety amongst students. The literature gave identification about stress in different studies emphasizing that stress can be caused by different factors. There were two main stressors that the literature mentioned, including academic stress and psychological being. Firstly, according to Bataineh (2013), academic pressure and high overloads, study time, exam, low motivation, and high family expectations led to high stress levels among students. Another study by Al-Sowygh (2013) found a similar stressor: academic pressure and overload. Other factors found in this study with perceived academic stress are self-efficacy factors, behavioral disengagement, denial, and positive reframing. Liu and Lu (2011) found that lack of achievement predicted academic stress and depressive symptoms. Arsenio and Loria (2014) found that higher academic stress is related to students'

moods, negative academic affect, and disengaged coping. Reasons for academic stress and course grades were related to problem-focused coping and motivation (Ward, Raymond & Verena 2000).

Secondly, humans' psychological being influences how stressed they become. A study by Por et al. (2011) found that there is a relationship between emotional intelligence, well-being, and perceived stress. Edwards et al. (2010) investigated stress and self-esteem in nursing students and found that they have the highest stress level in their third year, whereas their self-esteem levels get the lowest at the end of the training. Pulido-Martos, Augusto-Landa and Lopez-Zafra (2011) highlighted that the sources of stress in their study were reviews, workloads, and studying issues. The literature mentioned different factors that caused stress to the students, but it lacked from in depth research in the UAE.

Furthermore, the literature accentuated that student's academic performance is influenced by different factors. For example, one common factor was academic stress (Mushtaq & Nawaz Khan 2012; Khan & Kausar 2013; Arsenio & Loria 2014; Beiter et al. 2015; Jose & Valsaraj 2015; Melaku, Mossie & Negash 2015). However, academic stress might not have a significant correlation with academic achievement as there are different factors and stressors that might be more influential (Charkhabi, Azizi Abarghuei & Hayati 2013; Alyami et al. 2017). Charkhabi, Azizi Abarghuei, and Hayati (2013) found out that there is

a statistically significant correlation between academic burnout and self-efficacy. Alyami et al. (2017) had similar results as they identified that insignificant academic performance was seen in cases of perceived stress levels. However, there was a low correlation between stress and self-efficacy. There were also other factors that can influence students' academic performance, including communication, learning facilities, proper guidance, and family stress (Mushtaq & Nawaz Khan 2012). Besides stress, motivation and personality might also be related to academic performance (Park 2012), as are the pressure to succeed and post-graduate plans. The groups of students most identified with stress, anxiety, and depression were upper-class students, transfer students, and students living off-campus (Beiter et al. 2015). As such literature review required more research in the UAE especially for Arab female students. Next, this review of the literature will focus on academic stress during the COVID-19 pandemic. Almost all studies emphasized the pandemic's significant influence on peoples' well-being (Elmer, Mepham & Stadtfeld 2020; Li et al. 2020; Moawad 2020; Pajarianto 2020; Sahu 2020). Also, Moawad (2020) investigated students' stressors during the pandemic and found that uncertainty over the end-of-semester exams and assessments rated the highest. Besides uncertainty, the lack of student interaction resulted in students studying alone, which caused high levels of stress, anxiety, and symptoms of depression among them. Also, there were some studies that focused on student's perceptions of online learning during the COVID-19 pandemic. Almuraqab (2020) noted that although most of the participants preferred distance learning, it still had a

psychological negative effect on them due to the absence of face-to-face learning. Hussein et al. (2020) found that online learning has an advantage on time-effectiveness and participation. Online learning had also disadvantages including class management and technological issues (Hussein et al. 2020; Wangdi, Dema & Chogyel 2021). Adnan and Anwar (2020) also pointed out that students had technological issues and found it difficult to interact with their teachers virtually. It is important to note that there were not many studies done on the proposed topic. However, this research paper focused on student's stress levels examining different stressors during the COVID-19 pandemic in the UAE.

Methodology

The respondents chosen in the current study were undergraduate students from the COE and other colleges but studying COE elective courses (N = 191), and most participants' ages ranged from 18-24 (p = 93%). They were all females (p = 99%) as two participants did not identify their gender (p = 1%). The aim was to have approximately 200 participants for the survey and the researcher conducted one group discussion with seven students. The approximate number of the whole targeted population was around 420 students studying at the COE. The survey received 210 responses, whereas the researcher analyzed 191 responses only after excluding non-received consent responses and participants under 18. The choice of a large number for the survey was to ensure the data's reliability and validity. Students varied in their year classification: First-year students (p = 6.8%), Second-year

students (p = 21.1%), Third-year students (p = 46.1%), Senior/Fourth-year students (p = 25.1%). Most of the participants were from the COE (p = 77.5%). As mentioned, other participants were from other colleges studying COE elective courses, including College of Communication & Media Sciences (p = 14.1%), College of Natural and Health Sciences (p = 6.3%), College of Arts and Creative Enterprises, and College of Humanities and Social Sciences (p=1 %) each. Students reported their GPA as the following: A-range (p = 48.2%), B-range (p = 48.7%), C-range (p = 2.6%), D or Below (p=0.5%).

Non-probability sampling methods were chosen, and even though this type of sampling had high risks for sampling bias, it was more convenient to include a large number of participants. It is important to note that the four non-probability sampling approaches are convenience sampling, voluntary response sampling, purposive sampling, and snowball sampling. This research used the voluntary response sampling. The study's survey was sent as an email and was posted in Blackboard, an online learning system used at the university for the students. Regarding the discussion, the researchers used convenience sampling and reached out to a group of seven students. They further discussed their perceptions of COVID-19 on academic stress and anxiety and their coping techniques.

The instruments used in the current research for the quantitative data collection were previously developed tools and validated, but they were modified to suit the current sample.

This study identified the stressors by using self-reported data from the survey. Moreover, the online survey was divided into three main categories: demographic information, COVID-19 stress scale (CSS), and academic stress inventory. The demographic questions covered the group age, gender, marital status, undergraduate program, academic history, and Grade Point Average (GPA). CSS was developed by Taylor et al. (2020), and it consisted of a 36-item questionnaire to measure the pandemic's stress levels. The questions' answers were measured on a Likert scale with 5 points ranging from "never" (1) to "always" (5). The answers to the questions in the CSS led to six categories, including COVID danger, contamination, COVID's socioeconomic consequences, COVID-related xenophobia, COVID-related traumatic stress, and COVID-related compulsive checking. Regarding the validation for the CSS, Taylor et al. (2020) measured convergent and discriminant validity to the instruments. The results showed significances in all the variables, which supported the effectiveness of the CSS (Taylor et al. 2020). When using the CSS in the current study, a word was changed from "foreigner" to "stranger" in the questionnaire to avoid cultural sensitivity and follow the ethical committee's decision. The study measured academic stress using another scale in addition to CSS, taken from Bedewy and Gabriel (2015), which included an 18-question scale to examine the main sources of the stress and the students' opinions about it. The first 5-questions' answers were scored on a 5-point Likert scale, from strongly disagree (1) to strongly agree (5). The other 13-questions' answers were also scored on a 5-point Likert scale, but from strongly agree (1) to strongly disagree (5).

Regarding the academic stress inventory's validity, evidence showed significance when measuring content and convergent validity. Factor analysis also showed four correlated factors which explains the validity of the inventory. The four validated factors of the academic stress inventory are: Academic self-perception, Perceptions of workload, Pressure to perform, and Time restraints. The researcher took the approval and formed a 30-items survey with combining the two mentioned inventories and 6 demographic questions.

Furthermore, the researcher developed a focused group interview questions. The proposed interview used was a group semi-structured interview, as the questions were prepared beforehand. The interviewer asked open-ended questions, which were open for a discussion. The questions were about the students' experiences and perceptions of academic stress during the COVID-19 pandemic. Moreover, the questions were mainly about how students have dealt with their stress during the epidemic. The researcher developed the discussion interview questions after gathering the quantitative data to add and fill the gaps, and the research supervisor and the ethical research committee reviewed the questions.

Results and Analysis

The first data were extracted from the questionnaire as quantitative data. The data were

analyzed according to the relation between COVID-19 and academic stress. The descriptive statistics, t-test, ANOVA (Analysis of Variance), and correlation were analyzed in Statistical Package for the Social Sciences (SPSS). The statistical analysis was very beneficial to find if there is a relation and how significant the variables are to measure if COVID-19 has a major or significant impact on academic stressors. Descriptive statistical analysis used the frequencies and means to determine a pattern within the data. The qualitative data were taken from interviewing seven participants in a discussion focused group. They were measured by creating categories and themes to find a thematic pattern between answers. Moreover, the thematic analysis was used to divide the transcripts into categories, codes, and themes. Microsoft Excel was used to help organize the qualitative data taken from the interview in the current study. **Table 1** below explores the highest stress levels in the items' factor analysis specifically in the number of the participants (N), the minimum and maximum numbers of the Likert scale, the mean (M), and the standard deviation (SD).

Table 1: Descriptive Statistics in the Survey's Factors Analysis

Factors	N	Minimum	Maximum	Mean	Std. Deviation
Academic self-perception	191	1.00	5.00	3.6736	1.03107
Perceptions of workload	191	1.00	5.00	3.5707	.82173
Pressure to perform	191	1.00	5.00	3.2712	.72137
Xenophobia	191	1.00	5.00	3.2705	1.03709

Table 1 shows that the academic self-perception factor was the highest in stress level among the participants (M = 3.67), and the perceptions of workload factor was the second

highest in stress (M = 3.57). Pressure to perform and xenophobia factors received moderate levels of stress (M = 3.27), (M= 3.27). However, when comparing the COVID-19 stressors, xenophobia was the highest one. Although xenophobia factor is the highest among the other COVID-19 factors, the table wholly explains that the students were slightly more stressed academically than the COVID-19 pandemic. **Table 2.1** below shows the descriptive statistics of the highest *Mean* in the survey's factors by diving the sample accordingly to their GPA, especially in A-range and B-range.

Table 2.1: Descriptive Statistics and Significance of the Factors Sorted by GPA Category (A-range and B-range)

Item	GPA Categ	N	Mean	Std. Deviation	Std. Error Mean
Perceptions of workload	B-range	93	3.7473	.68613	.07115
	A-range	92	3.3370	.86478	.09016
Time restraints	B-range	93	3.3925	.89031	.09232
	A-range	92	3.0326	1.02925	.10731

Table 2.1 shows that only perception of workload and time restraints has the highest level of stress between A-range and B-range students. A t-test analysis was also used to examine the factors of stress levels on COVID-19 and academic stressors. The findings showed a significance in the variance between Group 1, A-range (M = 3.33, SD = 0.864) and Group 2, B-range (M = 3.74, SD = 0.686) in the *"perception of workload"* factor. Also, a

significance shown also between Group 1, A-range (M = 3.03, SD = 1.029) and Group 2, B-range (M = 3.39, SD = 0.890) in the *"time restraints"* factor. The significance can be shown clearly in **Table 2.2** (see below). **Table 2.2** below shows the t-test analysis of the significances of variance in perceptions and workload and time restraint factors when dividing the same accordingly to their GPA as in A-range and B-range.

Table 2.2: Independent Samples Test - Levene's Test for Equality of Variances of the Factors Sorted by GPA Category (A-range and B-range)

Independent Samples Test		Levene's Test for Equality of Variances				
		F	Sig.	t	df	Sig. (2-tailed)
Perceptions of workload	Equal variances assumed	4.001	0.047	3.577	183	0
	Equal variances not assumed			3.573	173.194	0
Time restraints	Equal variances assumed	2.426	0.121	2.544	183	0.012
	Equal variances not assumed			2.542	178.719	0.012

The t-test is t (173.194) = 3.57, p =.000 in the *"perception of workload"* factor, and these statistics explain that students whose grades are within the A-range are less stressed than students whose grades are in the B-range in academic workload as in assignments and curriculum. Also, a significance shown also between Group 1, A-range and Group 2, B-range, as the t-test is t (178.719) = 2.542, p = .012 in the *"time restraints"* factor. These findings explain that students within the A-range are less stressed in time restrains than B-range students. **Table 3.1** below shows one-way ANOVA on the survey items' factors. The

table only shows that xenophobia factor has a significant difference when dividing the sample accordingly to their years classifications.

Table 3.1 ANOVA – Descriptive Statistics and Significance of all Factors Sorted by Student's Years Classification

Oneway

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Danger	Between Groups	2.222	3	.741	.733	.534
	Within Groups	188.075	186	1.011		
	Total	190.298	189			
SocialEconomic	Between Groups	3.339	3	1.113	.836	.475
	Within Groups	247.513	186	1.331		
	Total	250.851	189			
Xenophobia	Between Groups	9.332	3	3.111	2.975	.033
	Within Groups	194.491	186	1.046		
	Total	203.822	189			
Contamination	Between Groups	2.718	3	.906	.975	.406
	Within Groups	172.824	186	.929		
	Total	175.542	189			
Traumatic	Between Groups	2.110	3	.703	.552	.647
	Within Groups	236.814	186	1.273		
	Total	238.924	189			
Compulsivechecking	Between Groups	1.600	3	.533	.449	.718
	Within Groups	220.974	186	1.188		
	Total	222.574	189			
Pressuretoperform	Between Groups	2.430	3	.810	1.567	.199
	Within Groups	96.161	186	.517		
	Total	98.591	189			
Perceptionsofworkload	Between Groups	.423	3	.141	.207	.891
	Within Groups	126.720	186	.681		
	Total	127.143	189			
Academicselfperception	Between Groups	4.202	3	1.401	1.320	.269
	Within Groups	197.351	186	1.061		
	Total	201.553	189			
timerestraints	Between Groups	.947	3	.316	.321	.810
	Within Groups	182.895	186	.983		
	Total	183.842	189			

Table 3.1 shows that there is significant difference (P = .033) in xenophobia factor when

running Onaway ANOVA, which means that there is a difference between the groups of student's years' classifications in xenophobia factor. The tables below describe more in details which year classification differs the most when comparing it to the other groups of years' classifications. **Table 3.2** shows the comparison and the significance between the student's years' classifications, including first second, third and fourth years.

Table 3.2 ANOVA – Multiple Comparisons of Xenophobia Factor Sorted by Student's Years Classification

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Xenophobia

Tukey HSD

(I) What is your current student classification?	(J) What is your current student classification?	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound
First-year student	Second-year student	.91119*	.32548	.029	.0674
	Third-year student	.56206	.30384	.254	-.2256
	Senior	.48504	.31972	.429	-.3438
Second-year student	First-year student	-.91119*	.32548	.029	-1.7550
	Third-year student	-.34913	.19335	.274	-.8504
	Senior	-.42615	.21746	.207	-.9899
Third-year student	First-year student	-.56206	.30384	.254	-1.3497
	Second-year student	.34913	.19335	.274	-.1521
	Senior	-.07702	.18348	.975	-.5527
Senior	First-year student	-.48504	.31972	.429	-1.3139
	Second-year student	.42615	.21746	.207	-.1376
	Third-year student	.07702	.18348	.975	-.3986

Multiple Comparisons		
Dependent Variable: Xenophobia		
Tukey HSD		
(I) What is your current student classification?	(J) What is your current student classification?	95% Confidence Interval Upper Bound
First-year student	Second-year student	1.7550
	Third-year student	1.3497
	Senior	1.3139
Second-year student	First-year student	-.0674
	Third-year student	.1521
	Senior	.1376
Third-year student	First-year student	.2256
	Second-year student	.8504
	Senior	.3986
Senior	First-year student	.3438
	Second-year student	.9899
	Third-year student	.5527

*. The mean difference is significant at the 0.05 level.

It can be found out from **Table 3.2** that first-year student has significance when comparing it to the other years ($P = .029$). **Table 3.3** below shows Tukey's Honest Significance Test of xenophobia factor sorted by student's years' classifications.

Table 3.3: ANOVA – Tukey's Honest Significance Test of Xenophobia Factor Sorted by Student's Years Classifications

Homogeneous Subsets

Xenophobia

Tukey HSD[a,b]

What is your current student classification?	N	Subset for alpha = 0.05	
		1	2
Second-year student	41	2.9350	
Third-year student	88	3.2841	3.2841
Senior	48	3.3611	3.3611
First-year student	13		3.8462
Sig.		.374	.148

Means for groups in homogeneous subsets are displayed.
a. Uses Harmonic Mean Sample Size = 29.960.
b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

To sum up, the researcher performed one-way ANOVA on the survey items' factors, and only the xenophobia factor had a significance shown in **Table 3.1,** F (3, 186) = 2.97, P = .033. After applying multiple comparison in **Table 3.2** and Tukey's Test for Post-Hoc Analysis shown in **Table 3.3**, it was shown that First-year students reported the highest level of stress level in xenophobia factor (M= 3.84). Second-year students reported the lowest level of stress (M = 2.93). Correlation was also used to find the statistical relationship between the factors presented in the survey. The findings showed positive correlation between academic stressors factors and COVID-19 stressors independently. There is a strong positive correlation when comparing Danger factor with the following factors: xenophobia and contamination r (189) = .55, p = .00, and r (189) = .63, p = .00. There is also a strong positive correlation between social economic factor and traumatic

factor r (189) = .68, p = .00. A strong positive correlation was shown between xenophobia comparing it with contamination and compulsive checking, r (189) = 63, p = .00, and r (189) = .50, p = .00. Contamination factor with traumatic and compulsive checking factors, showed strong positive correlations r (189) = .53, p = .00, and r (189) = .64, p = .00. The traumatic factor and compulsive checking factor showed a strong positive correlation, r (189) = .67, p = .00. There is a strong positive correlation when comparing pressure to perform factor with perception of workload and time restraints factors, r (189) = .51, p = .00, and r (189) = .57, p = .00. Finally, perception of workload and time restraints factors showed a strong positive correlation, r (189) = .50, p = .00.

Discussion

This section includes four academic stress areas from the findings to accomplish the research objectives and answer the research questions. The four aspects are students' psychological well-being, academic pressure, academic performance, and students' year classifications. Moreover, each area will include the main findings, theoretical explanations, and evidence from the literature review. Firstly, the results indicated higher stress levels with the xenophobia factor, **(see Table 1, Table 3.1, Table 3.2 & Table 3.3)** in the CSS (Taylor et al. 2020). Xenophobia is a Greek word; “xenos” means “foreigner” or “stranger,” so the whole word means the fear of a stranger (Bordeau 2010). Also, the students reported high stress levels when it comes to being trapped in an elevator with a stranger. This result explains xenophobia and agoraphobia in anxiety disorders; “agoraphobia” means the fear

of being in situations that one finds difficult to escape (Hemmings 2018). The findings of the mentioned anxiety categories were quite expected because the researcher assumed that COVID-19 affects students' well-being by creating an anxious environment. Anxiety has affected many people because it is common for people during the pandemic (Hyland et al. 2020). This finding answers the research question in exploring which COVID-19 stress inventory factor was the highest, and it was found out that xenophobia has the highest stress level. The objective was to understand if COVID-19 affected students, and the mentioned finding indicates an indirect influence of COVID-19 on students.

Secondly, academic pressure played an essential role in the study as one of the objectives and research questions was about identifying the highest levels in academic stress inventory (Bedewy and Gabriel 2015). Thus, students reported that academic stress factors, including examination time and workload size, were slightly stressful. Also, overall academic self-perception and perceptions of workload were the highest factors in stress between the students. Bataineh (2013) had a similar finding, stating that some factors, including high academic stress and overloads, study time, and exams, lead to high stress levels between the students. Al-Sowygh (2013) also found out that academic pressure and overload are critical stressors that influence students. Pulido-Martos, Augusto-Landa, and Lopez-Zafra (2011) explored workload, and their result indicated that it is one of the primary sources of stress between the students. The mentioned findings indicate that workload and exams are

the main stressors for the student. Finally, academic performance is one of the essential aspects of the current research. Academic performance can be explained by self-efficacy and self-determination theories. As mentioned in the literature, self-efficacy is someone's belief in their ability to perform something (Bandura 1977). When relating the self-efficacy theory to education, it is expected that students who believe in their ability will have a higher self-efficacy, and this would lead them to perform better. Another theory is the SDT about the inner motivation of someone, and it can emphasize students' academic performance. It is assumed that when students motivate themselves more, they will perform better in education. Also, it is essential to note that students' academic performances are affected by academic stress (Mushtaq & Nawaz Khan 2012; Khan & Kausar 2013; Arsenio & Loria 2014; Beiter et al. 2015; Jose & Valsaraj 2015; Melaku, Mossie & Negash 2015). The results of the current study support the mentioned assumptions, as they show a significant difference between the factors of perception of workload and time restraints between A-range and B-range students. A-range students performed better and showed more confidence in themselves than B-range students. Charkhabi, Azizi Abarghuei, and Hayati (2013) found a statistically significant correlation between academic burnout and self-efficacy. The current study found a strong positive correlation when comparing the pressure to perform factor with workload perception. When students have stress and pressure and start to have a lower self-efficacy, this will lead to burnout.

The qualitative data analysis results showed that there was a direct impact of COVID-19 on academic stress. However, the effect was not because of the pandemic itself but the changes caused by COVID-19. The main themes identified as mentioned are challenges, good experience, stressors, COVID-19 impact, coping, and suggestions. Students mentioned that the main obstacles were the online teaching and platform, language, subject content issues, and time management. Online teaching changes created stress, especially when students and teachers were not ready to depend on online tools (Adnan & Anwar 2020). Learning novel online platforms in a short time caused stress and anxiety. Also, dealing with the obstacles and challenges caused by these online tools was a hassle. A student mentioned, *"We had internet connection issues. The programs required strong connections."* Therefore, using online tools required more effort and facilities like internet connection and device quality to support the changes. Despite the challenges, the students also reported that it was an excellent experience to learn something new. Online teaching allowed students to use new teaching techniques. It is essential to note that problem-focused coping and motivation highly help manage academic stress (Ward, Raymond & Verena 2000). When highlighting the stressors and COVID-19 impact, it was found that some stressors were time management, workload, stress, and anxiety. Students reported in the discussion that time management and workload were their main stressors, and they were also the highest factors in the academic stress inventory (Bedewy & Gabriel 2015).

Moreover, students reported that stress and anxiety affected them, especially during their studies, with all changes. The COVID-19 pandemic affected peoples' well-being (Elmer, Mepham & Stadtfeld 2020; Hussien et al. 2020; Li et al. 2020; Moawad 2020; Pajarianto 2020; Sahu 2020). It is important to consider that a high academic stress level is related to students' moods and disengaged coping (Arsenio & Loria 2014). Moreover, students still used some skills to cope with the stressors and gave feedback to overcome academic stress during the COVID-19 pandemic. Some of the coping skills mentioned were increasing the internet connection and using more than one device. Students had to use their laptops/computers at home during their internship since education was online. Therefore, a student used her phone to check the early childhood students' chatbox and teach them from her laptop. A student reported that she got support from her mentor during the pandemic, especially with stress and anxiety. Lastly, students gave feedback to adapt to the stress and pressure during COVID-19. Three suggestions were mentioned, including recording meetings and posting them online, having more supervision, and sharing feedback and experience between peers. The meetings conducted by the COE caused students to be stressed, especially since the meetings added to their workload, so recording them and posting them on Blackboard would ease the students. Also, having more supervision weekly from different supervisors would keep the students calm and on track because being distant creates uncertainty and anxiety. Finally, students suggested entering each other's online classes, if possible, to share experiences and feedback that would

emphasize teamwork.

Conclusion

This study was about the effect of COVID-19 on academic stress, and it investigated the main pandemic and academic stressors. The study also explored the student's perceptions and coping skills during the pandemic. The researcher expected a direct impact from COVID-19 on academic stress because it is a time of crisis and the research assumed that it is the primary influence on students. The researcher used a mixed-method approach in which it includes quantitative data in a developed survey and qualitative data in a focused group discussion. Firstly, the researcher conducted a survey and collected quantitative data. The main findings showed high significance in the following four categories: the psychological well-being of students, academic pressure, academic performance, and students' year classifications. Students reported in the survey that xenophobia was the highest factor in the CSS (Taylor et al. 2020).

In contrast, academic self-perception and workload perceptions were high in the academic inventory (Bedewy & Gabriel 2015). Academic performance was influenced by academic stress and COVID-19 factors. Also, first-year students showed more stress levels than the other years. Secondly, the researcher conducted a focused group discussion of seven students and obtained the last main research question to understand their perceptions and

coping skills. The main findings filled the quantitative analysis gap in confirming the direct effect of COVID-19 on academic stress, especially the changes caused by the pandemic. The students reported that they think time and workload were the main stressors in the focused group discussion. The physical changes to going online caused them anxiety and stress during their internship as they did in the learning and teaching process. The students suggested having a smaller workload and more supervision.

The main implication is that educators can improve the educational system using the current research and data. The study showed evidence from students suggesting some changes in the curriculum to support future education. COVID-19 caused a massive change in education, and coping skills can be adopted during the pandemic to ensure education moves in a smooth process for the future. For example, using technology created stress, yet it solved different concerns. It created a good experience, which can be the beginning of blended learning rather than depending on one type of teaching. Education can include both physical and online learning and teaching. However, to ensure that the process is successful, it is essential to study and investigate education's current situation. This research created an opportunity to investigate the current condition of education. Students suggested having less workload and more supervision. They reported that online education could be enhanced by improving the education platform and making it more suitable for students' interaction. The country can also continue supporting the citizens and students in

controlling the impact of the COVID-19 pandemic. It succeeded in not creating anxiety for the participants in the presented research.

Despite the implications of the current study, it had several limitations, including the limited category of students surveyed and the few students selected for discussion. The study was done on students from the COE and other colleges but studying elective courses in the COE, so having more diversity in this area might increase the study's validity and reliability. Also, the number of students can be increased, especially within the focused group. Having more ideas will help determine more perceptions and solutions in overcoming the academic stress during the pandemic. Moreover, the focus group dealt with the experience of internship students teaching online in public schools during the pandemic. It is not necessarily applicable to the 191 students surveyed in the questionnaire about their experience of studying online during the pandemic. The researcher could not conduct more focused groups due to the time limit in submitting the current dissertation. The ethical approval took four months before the researcher could start since the study has a novel and sensitive topic. Therefore, future studies can fill this gap by increasing the number of participants, and this will be discussed in the following paragraph.

For future studies, the number of students can be increased in both data collection processes. The survey included 191 students for the quantitative data collection from the COE and

other colleges, but the majority were from the COE, so having more students from different majors might lead to more accurate findings. Also, instead of limiting the survey questions, it might be more valid to develop a survey with more questions about the changes of COVID-19 besides having the psychological influence or factors only of the pandemic. Despite having a limited number of participants, the current study had several delimitations and scope for future studies. Firstly, the study mentions the importance of psychological well-being in the academic life of students. The topic mainly describes the pandemic crisis event and its impact on students, particularly in their well-being and academic stress. The study topic was initiated because students expressed anxiety at the beginning of the semester during the pandemic and lockdown. This topic is essential to helping students cope with the negative consequences of the pandemic. Importantly, stress and anxiety are common effects of crises. Thus, this study investigated the issue among the targeted sample and explored the topic in depth.

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