

Perceived Stress in Distance Learning During the COVID-19 Pandemic in Palestine: Across Sectional Study among Students of Faculty of Economics and Administration

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Abstract

The COVID-19 pandemic is regarded as a health issue that has a significant impact on educational systems around the world. Therefore, university students transferred to distance learning. The current study investigates the perceived stress level among faculty of economics and administration students in distance learning during the COVID-19 period because the virus has an impact on mental health. In a cross-sectional study, 400 university students of faculty of economics and administration who made up the sample were asked to rate their perceived stress (PSS) as well as their feelings and worries during the COVID-19 pandemic. The results showed that 30.5% of students often felt that they were unable to control the important things in the life, 30.25% often felt stress and nervous, 34.75% felt confident about the ability to handle their personal problems and 28.5% felt that things were going their way. The results showed that 46.25% of participants had moderate stress, 30.25% had low stress, and 23.5% had high stress. Females were more likely (53.3%) to have moderate stress than males (38.4%) ($p < 0.001$). For educational level, the study showed that post graduate students were more likely ($n = 82$, 45.8%) to have high level stress than undergraduate students ($p < 0.001$). The study showed that undergraduate students were more likely to have low ($n = 76$, 35.8%) and moderate ($n = 124$, 58.5%) stress than postgraduate students ($p < 0.001$). The results showed that students who came from low income families were more likely to had moderate ($n = 119$, 54.3%) and high level of stress ($n = 56$, 59.8%) ($p < 0.001$). The frequency of psychological suffering linked to an abrupt switch from in-person instruction to online instruction. Incorporating online counseling and stress management programs will reduce stress and improve students' mental health while they are learning remotely.

Keywords: *University students, COVID-12, pandemic, perceived stress, Palestine.*

Introduction

People who are infected with COVID-19 are experiencing an outbreak of acute infectious pneumonia as a result of the pandemic's rapid global expansion (Bao et al., 2020). The general public, individuals, senior citizens, healthcare and medical providers, and educators were all under a great deal of stress as a result of this widespread infection (Pan et al., 2020). Thus, taking proactive steps to prevent COVID-19

infections is essential. These include donning gloves and face masks, avoiding crowds, and washing your hands often (Liang, 2020). In addition to the potential for infectious disease-related mortality, this crisis has caused intolerable psychological stress for people worldwide (Xiao, 2020), which is having an impact on many facets of daily life.

Numerous research studies were conducted before to the COVID-19 pandemic to assess the

perceived stress level of students globally, including those attending universities. However, a few studies on the same topic were conducted during the pandemic. In many countries across the world, including Spain (Marcén-Román et al., 2020), Saudi Arabia (Abdulghani et al., 2020), and India (Agrawal et al., 2021), recent studies have reported a significantly higher increase in perceived stress among students during the COVID-19 pandemic.

Students' perceived stress levels varied from 12.6 to 30.2%, according to recent research done during the COVID-19 pandemic (AlAteeq et al., 2020). According to a study conducted in the Southeast of the United States, students' perceptions of stress increased during the COVID-19 era compared to earlier periods. Moreover, white students than African American students felt that the epidemic had a greater negative influence on their wellbeing (Charles et al., 2021). During the COVID-19 epidemic, pupils in south-east Serbia were reported to have a mean perceived stress score of 20.43, indicating a moderate level of stress. 25% of participants in a Chinese study reported having anxiety symptoms, which were associated with increased worries about academic setbacks, the COVID-19 pandemic's economic effects, and disruptions to everyday routines (Cao et al., 2020).

Due to the widespread COVID-19 outbreak, many universities were closed for an extended period of time in the majority of countries. Students' movement is seen to be a significant contributing cause to the current health crisis, and closing universities is an important preventive measure to stop the COVID-19 spread cycle and manage the rapidly expanding infectious outbreak among students. Additionally, research using mathematical modeling demonstrated that closing universities has a major effect on how big pandemics get as well as how to stop their exponential spread. In response to the sudden closure of universities, educators moved to virtual platforms to maintain contact with pupils, and webinars took on the role of a makeshift classroom to guarantee that students continued their education despite the current emergency. In

order to minimize universities closures and provide online resources that may be used throughout the pandemic, the relevant bodies called on teachers and students to switch to distance learning during the COVID-19 period. A variety of social media and educational platforms, including virtual classrooms, live streaming, broadcasting, Facebook, WhatsApp, YouTube, digital libraries, learning management systems (LMS), and Google Forms, were employed. The COVID-19 pandemic negatively impacted student' emotional and physical health, and universities closures for an indefinite period of time have a significant impact on them (Radwan et al., 2020).

The COVID-19 pandemic in Palestine started on March 5, 2020, when the first case of infection was found in the West Bank. In order to mitigate the extensive COVID-19 pandemic and prevent a potential mass infection among students, the Palestinian Ministry of Education and Higher Education has issued an order to close all educational establishments, including universities, indefinitely. When universities were closed, students were told to stay at home while teachers provided online tutoring via social media. According to recent studies, stress, anxiety, and depression were prevalent among college and university students during the lockdown (Bourion-Bédès et al., 2021).

Due to the closing of colleges, universities, parks, marketplaces, and leisure areas, people lost their jobs and sources of money, dropped out of school, and were unable to meet their fundamental requirements. Along with people all around the world, Palestinians experienced psychological issues during the COVID-19 lockdown as a result of being forced to stay at home, isolation, and other protective measures. These issues included stress, loneliness, anxiety, fear, sadness, and panic. As a result, the crisis negatively affects students' academic performance, learning, and functioning in the classroom. As far as we are aware, no research has examined how stressed out faculty of economics and administration students were during the quarantine. Thus, this study aimed to identify the perceived stress level in distance

learning in university students during the COVID-19 pandemic in Palestine.

Methods

study sampling

This study was conducted from May to October, 2021, during time closure period. The target population is the students of the faculty of economics and administration who enrolled universities in Palestine. Social isolation, quarantine, social distancing, and lockdown are being implemented as preventive measures to stop the rapid spread of the COVID-19 pandemic, which is the subject of this research. Due to the current health conditions, it was not possible to perform a community-based sampling survey during the period of movement restriction; therefore, data collection may only be done online via digital platforms.

A poster was posted on Facebook, WhatsApp, Virtual Classrooms, and other social media platforms in order to get as many students as possible to see it and take part in the study. This was done based on the authors' connections with principals, instructors, and students in Palestine. This poster had a brief introduction, information on the study's background, protocols, goal, voluntary nature of participation, statements of anonymity and confidentiality, and a link to the necessary questionnaire.

The following were the inclusion criteria:

1. Students from the faculty of economics and administration who are enrolled in a private or public Palestinian university.
2. Students who follow their education using digital platforms and electronic tools during the closing of the university.

Both conditions were confirmed by means of the answers provided in the mandatory questionnaire. Excluded from the study were those who did not continue their education via digital or electronic means.

Study Instrument

Three key components made up the online survey: the first asked questions about demographics such as gender, age, place of residence, and educational level. The Perceived Stress Scale (PSS) questions were included in the second part. The authors used a questionnaire created by Cohen et al. (1983) to identify the perceived stress level among students in distance learning during the COVID-19 pandemic. Ten questions make up this scale, which assesses how stressed out students feel they have been in the last month. It has a 5-point Likert scale to record answers from very seldom (zero) to never. Total mean scores between 0 and 13 represent mild stress, 14 and 26 represent moderate stress, while 27 and 40 represent high stress. The PSS is a widely accessible instrument with respectable psychometric qualities. A qualitative exploratory inquiry regarding the feelings and worries of students during the COVID-19 period was addressed in the third section. An expert with strong survey design experience and fluency in both languages used an Arabic-validated version of the PSS questionnaire before translating it into English. Sentences were modified to better reflect the educational background of the students. The internal consistency of the questionnaire was assessed using a Cronbach's alpha test, and the result was 0.800, indicating high reliability.

Statistical Analysis

SPSS version 22.0 was utilized for conducting statistical analysis. The Mann-Whitney U test or the Kruskal-Wallis H test were employed in this study to assess the mean differences in felt stress among the demographic factors. For categorical variables, descriptive statistics employed frequencies and percentages (%); group differences were assessed using the Chi-squared test. In order to identify the factors that predict experienced stress and investigate the potential relationship between demographic data and perceived stress, multiple linear regression analysis was employed. We identified demographic traits as the independent factors and subjective stress as the

dependent variable. When $P < 0.05$, the data were deemed statistically significant.

Ethical Considerations

It was made clear before any data were gathered that participation in the study was entirely optional and could end at any time. The consent of was obtained from all participants. Every detail was recorded and kept confidential. The ethical approval was obtained from the ethical committee of Palestine Technical University - Khadoorie. The methods employed in this study complied with the principles for human subject research outlined in the Declaration of Helsinki.

Results

Demographic characteristics

A total of 400 students participated in the current survey (Table 1). The mean age of students was 23.31 (1.57). More than half of the students were female (52.5%), aged between 18–24 years (57.5%), and from West Bank (55.0%). The educational level of most participants were undergraduate (53.0%). The economical level of the study participants was low income ($n = 219$, 54.75%), middle ($n = 110$, 27.5%) or high income ($n = 71$, 17.75%).

Table 1. Demographic characteristics of the study participants

Variable	Categorize	n (%)
Gender	Female	210 (52.5%)
	Male	190 (47.5%)
Age	18 – 24 years	230 (57.5%)
	25 – 30 years	90 (22.5%)
	More than 30 years	80 (20.0%)
Educational	Undergraduate	212 (53.0%)

level	Post graduate	188 (47.0%)
Economical level	Low income	219 (54.75%)
	Middle income	110 (27.5%)
	High income	71 (17.75%)
Place of residence	West Bank	220 (55.0%)
	Gaza Strip	180 (45.0%)
Total		400 (100%)

Level of perceived stress

Table 2 shows the responses of the participants to the PSS questions. On response to the first question, some students (34.5%) confirmed that they often upset due to happened of something unexpectedly, whereas 18.5% never upset. Approximately, 30.5% of students often felt that they were unable to control the important things in the life, 19.75% never felt, 22.5% almost felt, and 27.25% sometimes felt that they were unable to control the important things in the life. In addition, the study showed that 30.25% of the study participants often felt stress and nervous, 34.75% felt confident about the ability to handle their personal problems and 28.5% felt that things were going their way.

Moreover, 42.0% of the students confirmed that they could not cope with all the things that they had to do, whereas 9.5% of them never felt. With respect to the question of “How often have you been able to control irritations in your life?”, the responses vary among students from never felt (17.5%) to the often felt (29.5%). Also, the results revealed that less than half of the students confirmed that they often felt they were on top of things (35.5%), angered because of things happened outside of their control (35.0%), and difficulties were piling up so high that you could not overcome them (33.25%).

Table 2. Responses of the study participants to the perceived stress scale (n = 400)

Perceived Stress Scale In the last month	Never n(%)	Almost n(%)	Sometimes n(%)	Fairly often n(%)	Very often n(%)
1. How often have you been upset because of something that happened unexpectedly?	74 (18.5%)	68 (17.0%)	120 (30.0%)	56 (14.0%)	82 (20.5%)
2. How often have you felt that you were unable to control the important things in your life?	79 (19.75%)	90 (22.5%)	109 (27.25%)	60 (15.0%)	62 (15.5%)
3. How often have you felt stressed and nervous?	71 (17.75%)	110 (27.5%)	98 (24.5%)	62 (15.5%)	59 (14.75%)
4. How often have you felt confident about your ability to handle your personal problems?	68 (17.0%)	102 (25.5%)	91 (22.75%)	64 (16.0%)	75 (18.75%)
5. How often have you felt that things were going your way?	69 (17.25%)	120 (30.0%)	87 (21.75%)	80 (20.0%)	34 (8.5%)
6. How often have you found that you could not cope with all the things that you had to do?	38 (9.5%)	92 (23.0%)	102 (25.5%)	71 (17.75%)	97 (24.25%)
7. How often have you been able to control irritations in your life?	70 (17.5%)	120 (30.0%)	92 (23.0%)	78 (19.5%)	40 (10.0%)
8. How often have you felt that you were on top of things?	52 (13.0%)	96 (24.0%)	110 (27.5%)	80 (20.0%)	62 (15.5%)
9. How often have you been angered because of things that happened that were outside of your control?	39 (9.75%)	123 (30.75%)	98 (24.5%)	85 (21.25%)	55 (13.75%)
10. How often have you felt difficulties were piling up so high that you could not overcome them?	60 (15.0%)	122 (30.5%)	85 (21.25%)	85 (21.25%)	48 (12.0%)

Table 3 presents the level of stress of the students according to their demographic characteristics. The results showed that 46.25% of participants had moderate stress, 30.25% had low stress, and 23.5% had high stress. The results revealed that there were significant relations between the level of stress and demographic variables.

Females were more likely (53.3%) to have moderate stress than males (38.4%) ($p < 0.001$), whereas males more likely to have low (35.8%) and high stress (25.8%) ($p < 0.001$). In addition, the participants aged more than 30 years were more likely to had moderate ($n = 36$, 45.0%) and high ($n = 28$, 48.0%) levels of stress than others counterparts ($p < 0.001$). For educational level, the study showed that post graduate

students were more likely ($n = 82$, 45.8%) to have high level stress than undergraduate students ($p < 0.001$). The study showed that undergraduate students were more likely to have low ($n = 76$, 35.8%) and moderate ($n = 124$, 58.5%) stress than postgraduate students ($p < 0.001$).

With respect to the economical level, the results showed that students who came from

low income families were more likely to had moderate ($n = 119$, 54.3%) and high level of stress ($n = 56$, 59.8%) ($p < 0.001$). On the other hand, students who came from high income families were more likely to had low level of stress ($n = 45$, 63.4%) ($p < 0.001$). The results showed that there is no significant differences between the study participants according to their place of residence ($p = 0.13$).

Table 3. The level of stress of the study participants ($n = 400$) by demographic characteristics

Variable	Level of stress			Total n(%)	P value
	Low n(%)	Moderate n(%)	High n(%)		
Gender					
Female	53 (25.2%)	112 (53.3%)	45 (21.5%)	210 (100%)	< 0.001
Male	68 (35.8%)	73 (38.4%)	49 (25.8%)	190 (100%)	
Age (years)					
18 – 24	67 (29.1%)	121 (52.6%)	42 (18.3%)	230 (100%)	< 0.001
25 – 30	38 (42.2%)	28 (31.1%)	24 (26.7%)	90 (100%)	
More than 30	16 (20.0%)	36 (45.0%)	28 (48.0%)	80 (100%)	
Educational level					
Undergraduate	76 (35.8%)	124 (58.5%)	12 (9.4%)	212 (100%)	< 0.001
Post graduate	45 (23.9%)	61 (32.4%)	82 (45.8%)	188 (100%)	
Economical level					
Low income	44 (20.1%)	119 (54.3%)	56 (59.8%)	219 (100%)	< 0.001
Middle income	32 (29.1%)	44 (40.0%)	34 (20.0%)	110 (100%)	
High income	45 (63.4%)	22 (31.0%)	4 (5.6%)	71 (100%)	
Place of residence					
West Bank	59 (26.8%)	138 (62.7%)	23 (42.0%)	220 (100%)	0.13
Gaza Strip	62 (34.4%)	47 (26.1%)	71 (39.5%)	180 (100%)	
Total	121 (30.25%)	185 (46.25%)	94 (23.5%)	400 (100%)	

Discussion

The current study is the first study that investigate the levels of perceived stress among students of faculty of economics and administration during the closure of universities due to the COVID-19 pandemic in Palestine. The results showed that 46.25% of participants had moderate stress and 23.5% had high stress. Studies carried out in other countries such as Saudi Arabia (Gazzaz et al., 2018) showed similar findings. In addition, a study was conducted by Abdulghani et al. (2020) to ascertain the impact of COVID-19 on the learning of undergraduate medical students. They demonstrated how COVID-19 alters students' instructional approaches, attitudes, and social dynamics.

Additionally, the participating students in the Aslan et al. study (2020) reported high levels of felt stress. This outcome is anticipated given the significant rise in COVID-19 cases among the populace in Palestine during the study's execution. Preventive measures, such as extended universities closures to prevent widespread student infection, have been put in place to halt the rapid COVID-19 outbreak among humans. Students switched to e-learning to finish their education through various digital platforms during the universities closure.

When it comes to using e-learning resources in their education, students have numerous challenges, including time management, assignment solving, and the incapacity to study all subjects. The pupils' performance and accomplishment in university also caused them worry and anxiety. In addition to the COVID-19 pandemic's detrimental effects on students, the overall situation of Palestine has left the region plagued by a myriad of issues pertaining to daily living. Due to extreme poverty, the inability to provide for basic needs, frequent power outages, damaged infrastructure, food insecurity, water pollution, rising unemployment rates, job loss, and numerous other issues with clothing and medication, students and their families face significant challenges in life (Elbedour et al., 2007).

The majority of students come from extremely low-income households, and their guardians are unable to give them the laptop, tablet, smartphone, internet, and other electronic resources they need to complete their education via online learning environments. Students found themselves in a difficult situation when they abruptly switched from traditional classrooms to virtual classrooms due to all of the above listed problems. Additionally, some students stated that they felt anxious, agitated, stress, and unable to handle various challenges amid the current crisis on a frequent (somewhat or extremely) basis. These findings corroborated those of earlier research from Palestine (Radwan et al., 2020 and 2021) Bangladesh (Sifat, 2020), and Malaysia (Wei, et al., 2020). These research assessed students' mental health during the COVID-19 pandemic and revealed that psychological distress, including anxiety, stress, and sadness, was common among students. Students also stated that switching to distant learning was prompted by academic issues, in addition to health concerns. Due to social, intellectual, and economical challenges, it was observed that distance learning was strongly connected with stress, anxiety, and depression. Because of their low resources and incapacity to handle modern technologies, some students find distance learning to be a significant problem.

The results showed that females were more likely to have moderate stress than males, whereas males more likely to have low and high stress. The majority of the study sample consisted of female students, which could account for this outcome. These findings, however, were consistent with those of a recent investigation carried out during the COVID-19 pandemic. When compared to males, they found that females had higher levels of stress. When universities are closed, pupils are more likely to study hard when they are under acceptable stress levels. The study's findings about the differences in risk perception between males and females may be directly related to these differences. For example, males may perceive a higher risk of dropping out of school when they are not fulfilling their educational obligations. It has been found

recently that gender was a significant predictive variable of participants' risk perception levels, with being a female being a predictor of higher risk perception. These findings were consistent with those of a study by Wang et al. (2020b), which found that the psychological effects of the COVID-19 pandemic are predicted by gender, with females experiencing higher levels of stress, anxiety, and depression and a greater psychological impact than males when compared to females.

When compared to younger students, the older students (aged more than 30 years) had a considerably higher felt stress. Moreover, postgraduate pupils were more likely than others to experience high levels of stress. This outcome may be explained by the fact that postgraduate students are maybe more dedicated than graduate students to completing learning activities at a distance. These activities include participating in discussion groups, taking exams, completing assignments and reports, interviewing teachers and friends, attending online classes for every subject, and more. The COVID-19 pandemic caused a complete transition in the educational system—rather than a partial move to blended learning—to distance learning since all coursework was completed online. The whole transition to an online learning environment can lead to social isolation, difficulty managing time and creating lesson plans, confusion, a lack of enthusiasm, and in-person communication. Because of the amount of homework, they have to complete and their likelihood of failing at it, students are more likely to experience stress, which in turn can lead to feelings of terror, panic, worry, and despair. Additionally, because of the closure of universities during the COVID-19 pandemic, postgraduate students are worried about how this crisis may affect their academic performance [20]. Postgraduate students may have been under more stress because they were more aware of the risk of closing the universities and had a more realistic view of what happened as a result of this closure. The authors explain that some undergraduate students are less stressed because they are not aware of the current health crisis, the risk of

university closing, or the significance of continuing their education remotely. They draw this conclusion from their own experience as lecturers. During the COVID-19 lockdown, some students disregarded their remote lessons and thought they were on vacation. They continued to go about their regular lives, playing on the roads, going to picnics, and attending social events, as stated by the authors.

The results showed that students who came from low income families had a noticeably higher levels of stress. This outcome is explained by the possibility that those students are burdened with additional responsibilities and assignments because of their financial situation, which prevents them from affording the technological resources needed to complete their education from a distance. Due to these factors, students' perceived stress levels increased, which had a significant impact on their academic performance and achievement in this governorate. This was especially true for students who would be graduating from university and want to look for a job, where they would be under pressure to register in the faculties of their choice. This finding is consistent with the findings published in the research of (Ahmed et al., 2020). They stated that during the COVID-19 shutdown, low-income families had restricted access to basic essentials. Most households lose their daily income due to shut down and job loss, making it difficult for them to provide for their family' basic needs. During the COVID-19 era, students from low-income families had significantly higher levels of stress. Since the members of those families are employed in the community that is disproportionately affected by lockdowns, such as layoffs and wage loss, they are concerned about the pandemic's long-term repercussions and potential financial troubles.

Conclusion

This study found that during the COVID-19 pandemic-related university closure in Palestine, students experienced moderate to high levels of stress. The frequency of

psychological suffering linked to an abrupt switch from in-person to online instruction. Postgraduate students and female students showed higher levels of stress. Stress management programs are also highly recommended, and they introduce online when teaching students and develop supporting materials to maintain the mental health of students while they study, in addition to giving them lessons and educational resources through digital platforms. Teaching pupils time management skills is also essential to ensuring that they can study all topics consistently. The findings demonstrated that certain pupils frequently experienced tension and rage as a result of events beyond their control. Additionally, students frequently reported feeling as though their workload was too much for them to handle and that their troubles had piled up to the point where they were unable to overcome them. Nonetheless, a few pupils attested to their capacity to manage problems in their life and tackle challenges most of the time. During the current situation, it is crucial that legislators and other relevant authorities pay more attention to students and maintain constant contact with them.

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