RESEARCH ARTICLE

Journal of Society Research

The Role of Emotional Distress in the Relationship between COVID-19 Burnout and Academic Burnout in University Students

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Abstract

The aim of the present study was to determine whether COVID-19 burnout and emotional distress predicted academic burnout, and to assess the mediating role of emotional distress, on the relationship between COVID-19 burnout and academic burnout in university students. The sample consisted of 311 (259 female and 52 male) students enrolled in undergraduate (87.1%), master/doctorate programs (12.9%). Students completed the COVID-19 Burnout Scale, Maslach Burnout Inventory – Student Scale (MBI-SS), and the Depression Anxiety Stress Scale-21 (DASS-21). Pearson's correlation coefficient showed a significant positive relationship between COVID-19 burnout, academic burnout, and emotional distress. COVID-19 burnout and emotional distress predicted academic burnout, also COVID-19 burnout and the depression scale of the DASS-21 predicted academic burnout. In a mediaton model, emotional distress partially mediated the relationship between COVID-19 burnout and academic burnout. When the model was tested with thedepression scale of the DASS-21, the relationship between COVID-19 burnout and academic burnout was partially mediated only by the depression scale.

Keywords: *Academic Burnout, Academic Engagement, COVID-19 Burnout, Emotional Distress, Depression.*

Öz

Bu araştırmada, üniversite öğrencilerinde korona tükenmişliği ve negatif duygu durumunun okul tükenmişliğini yordaması, ayrıca korona tükenmişliği ve okul tükenmişliği arasındaki ilişkide negatif duygu durumunun aracı rolü incelenmiştir. Çalışmaya 259 kadın, 52 erkek olmak üzere 311 öğrenci katılmıştır. Örneklemin %87.1'i lisans öğrencilerinden, %12.9 'u yüksek lisans/doktora öğrencilerinden oluşmaktadır. Katılımcılar, Koronavirüs Tükenmişlik Olçeği, Maslach Tükenmişlik Envanteri-Oğrenci Formu ve Depresyon, Kaygı ve Stres Ölçeğini-21 (DASS-21) yanıtlamışlardır. Korona tükenmişlik, okul tükenmişliği ve depresyon arasındaki ilişkiyi belirlemek amacıyla yürütülen Pearson korelasyon analizi sonuçları, tüm ölçekler arasında pozitif yönde anlamlı bir ilişki olduğunu ortaya koymuştur. Yürütülen regresyon analizinde, korona tükenmişliği ve negatif duygu durumunun okul tükenmişliğini yordadığı görülmüştür. DASS-21'in alt boyutlarıyla yürütülen analizde ise korona tükenmişliği ve depresyon alt boyutunun okul tükenmişliğini yordadığı görülmüştür. Ayrıca iki model test edilmiştir. İlk modelde korona tükenmişliği ve okul tükenmişliği arasındaki ilişkide DASS-21 ile ölçülen negatif duygu durumunun kısmi aracı rolünün olduğu görülmüştür. İkinci modelde ise korona tükenmişliği ve okul tükenmişliği arasındaki ilişkide DASS-21'in depresyon alt boyutuyla ölçülen depresyon semptomlarının kısmi aracı rolünün olduğu ortaya konmuştur

Anahtar Kelimeler: *Okul Tükenmişliği, Okul Bağlılığı, Korona Tükenmişliği, Negatif Duygu Durumu, Depresyon.*

Introduction

In Turkey, with the outbreak of the COVID-19, precautions have been swift and education transitioned to online learning in March 2020. Since the beginning preventive and cautionary measures, sharing of information, such as restrictions, use of masks, informing the public for daily cases and deaths have been similar to European countries. One of the main concerns related to the pandemic, other than physical health, have been its negative effect on mental health and wellbeing. The outbreak of COVID-19 has been associated with mental health problems including depression, stress, anxiety, and panic disorders (Li et al., 2021; Marler et al., 2021), which makes clear the importance of maintaining positive mental health as well as physical health. In a longitudinal study carried out with university students since 2018, students reported increased depressive symptoms and stress symptoms in April 2019 after the COVID-19 outbreak. Findings also showed that anxiety increased relatively and that students reported feeling lonelier during the onset of the pandemic (Elmer et al., 2020). This study is interesting since it provides comparison of emotional distress prior and after the pandemic. Similarly in another study university students reported increased stress and anxiety levels, sleep problems and negative changes in their eating habits (Son et al., 2020).

Many factors add to the disastrous effect of the pandemic on mental health, and prior mental health is an important determinant in this case. Individuals with high anxiety sensitivity reported increased levels of COVID-19 fear which in turn predicted increased anxiety and depression (Warren et al., 2021), and even individuals with high levels of life satisfaction and happiness before the pandemic, had problems in interpersonal relationships and general psychological functioning after the onset of the pandemic (Gawrych et al., 2021). In this aspect, psychological resilience stands out as an important protective factor. Increase in psychological resilience was related with lower levels of fear from the COVID-19 (Tutal and Efe, 2020). Emotional resilience which was also related with spirituality, worship, and meaning of life, was found to be associated with lower levels of anxiety, stress, and depressive symptoms, and higher tolerance for uncertainty (Kasapoğlu, 2020; Kimter, 2020; Kul et al., 2020).

Academic Burnout and COVID-19 Burnout

The negative effects of stressful life events on psychological functioning, including anxiety and depression is well documented in the literature (Gezer & Yenel, 2009; Hassanzadeh et al., 2017; Tibubos et al., 2021). Studies on burnout mainly focus on job and work place burnout, usually in individuals with people-oriented professions, such as educators, human services and health care professionals. Burnout is defined as a prolonged response to job related long-term interpersonal stressors. It includes three basic responses, which are, detachment from the job, overwhelming exhaustion, and cynicism, and includes reduced personal accomplishment due to being exposed to intense work related factors (Maslach & Jackson, 1981; Maslach & Leiter, 2016). Burnout is one of the negative outcomes related with stress and is closely related with anxiety and depression (Koutsimani et al., 2019). On the other hand, academic burnout is related to feeling exhausted due to study and study requirements (exhaustion), a cynical and detached attitude towards academic responsibilities (cynicism), and feeling inefficient as a student (inefficacy) (Zhang et al., 2006). It consists of burnout related to academic demands, and includes decreased school engagement, exhaustion at school, cynicism toward the meaning at school, feelings of inadequacy related to academic achievement, low grades, lack of positive interpersonal relationships, and high expectations from instructors and family. Some of the important factors contributing to academic burnout are academic pressure, negative attitude towards courses, and feeling inefficiant as a student (Woodrum, 2004; David, 2010). Social factors, school factors, interpersonal communication, feeling lonely are among the factors which influence student burnout (Eriş & Barut, 2020; Li et al., 2021). Expecting high effort and achievement without providing necessary support to cope with academic demands, is one of

the major characteristics of such a setting (Neumann et al., 1990). Personal factors and outcomes related with academic burnout are depression, anxiety and negative self-image (Salmela-Aro et al., 2009; Slivar, 2001), as well as negative emotions regulation strategies (Chen, 2021). On the other hand, social support, life satisfaction, and school engagement are some of the factors which are negatively associated with academic burnout (Akbaşlı et al., 2019; Ye et al., 2021).

Increased and prolonged experience of COVID-19 stress is thought as the main determinant of increased COVID-19 burnout (Yıldırım and Solmaz, 2020). On the other hand, resilience is found as an important factor in lessening the impact of COVID-19 stress on COVID-19 burnout. Studies on COVID burnout are mainly focused on healthcare professionals. Burnout was found to be related with anxiety, depression, and worry about getting infected in health care professionals. These outcomes were also related with safety attitudes and job role (Denning et al., 2021; Jang et al., 2021). Also emotional exhaustion increased according to perceived sufficiency, organizational support, work characteristics (Jang et al., 2021) such as being a frontline worker (Kılıç et al., 2021). Longer working hours were related with higher burnout, leading to emotional exhaustion and depersonalization (Zhang et al., 2020). Also females reported higher burnout compared with males (Kılıç et al., 2021). Studies recommend psychological and social support as well as safety measures in the work setting.

Mental health and Academic Burnout in University students during the COVID-19

The shift from face-to-face to online education due to the COVID-19 pandemic has been sudden and unforeseen, leaving no time for prior preparation in part for both faculty members and students. Although limited in number, studies indicate academic burnout may be a problem among university students during the pandemic. Arslan & Yıldırım (2021) concluded that COVID related stress was associated with depressive symptoms in university students, and relatedly Celik, (2021)

found that students' fear of Covid-19 was related with increased burnout and anxiety. In another study, Sveinsdóttir et al. (2021) also found that academic burnout was predicted by students' perceived stress and support. In summary it can be concluded that emotional distress and COVID-19 burnout are interrelated among university student populations.

The present study

Due to the pandemic which began in 2019, all universities in Turkiye moved to online learning in March 2020. After nearly 3 semesters of online education, transition to face-to-face education has had its difficulties. Although many university students were enthusiastic about returning to campus, the transition was not an easy one considering the consequences related with time spent in lockdowns and online education. How students emotionally handled this 1.5-year span is thought to make a huge difference in how they are handling the transition to face-to-face education. Most students were isolated from friends, but those who went through prolonged periods of isolation, who lack social support, who still have worries related to their health, and especially those who have lost loved ones and had mental health issues related with the circumstances created by the pandemic, are thought to be at higher risk. Given the time spent away from campus and friends, social restrictions, and uncertainties, confusion and frustrations related with the pandemic, these variables are thought to have added in differing amounts to burnout related with the COVID-19. Also, for some students the many months spent in online education may have negatively affected academic engagement and motivation and added to the possibility of academic burnout in the transition to face-to-face education.

We believe that the adversities created by the pandemic may have created exhaustion, which is a significant component of burnout. The prolonged and ambiguous nature of the process may have led to worries about what will happen next, whether education will continue face-to-face, and many other uncertainties may have led to an exhaustion

regarding the whole process. Although many studies have focused on mental health outcomes, fear and stress related to COVID, we focused on burnout because we believe that after 1.5 years, we are in a period in which all these factors may have led to burnout. We also believe that COVID-19 related burnout may be generalized into academic life, and emotional distress may be one of the several factors contributing to this process. Although there are studies examining mental health outcomes in university students, we couldn't come across any study examining COVID-19 related burnout and academic burnout in university students. Relatedly we assumed that COVID-19 burnout and emotional distress would predict academic burnout. Also, although COVID-19 burnout and academic burnout may be related, we assumed that emotional distress would make a difference on the relationship between the two constructs. In this case it was hypothesized that emotional distress would explain the relationship between COVID-19 burnout and academic burnout. For this purpose, a mediation model was tested to determine whether emotional distress had a mediating role in the relationship between COVID-19 burnout and academic burnout.

Method

Research Model

This is a descriptive correlational study. In descriptive studies, information about prevalent conditions and situations are gathered with the aim of description and interpretation (Hanson et al., 2005).

Participants

The sample consisted of 259 (83%) female and 52 male (16.4%) students (total 311) enrolled in undergraduate (87.1%), master/doctorate programs (12.9%). Demographics showed that 49.8% of the sample were enrolled in social sciences programs, 35% in health care programs, 11.6% in science programs, and 3.5% in engineering programs; 78.8% of the sample lived with their family, 10.6% stayed in a dormitory,

6.1% lived alone, and 4.5% lived with a roommate. The data was collected in November 2021, at the second month on transition to face-to-face education.

Data Collection Tools

Demographic information was collected through a demographic information form prepared by researchers. Data were gathered through the COVID-19 Burnout Scale, Maslach Burnout Inventory – Student Scale (MBI-SS), and the Depression Anxiety Stress Scale-21 (DASS-21).

COVID-19 Burnout Scale. The scale was adapted by changing the expressions of the short-form of the Burnout scale developed by Malach-Pines (2005) in line with COVID-19 (eg, "when you think about the coronavirus" instead of "about my job") (Yıldırım & Solmaz, 2020). This is a 5-Likert type scale (1=never to 5=always) and includes 10 items. A sample item is "When you think about COVID-19 overall, how often do you feel disappointed with people?". Higher scores indicate higher levels of burnout related with the COVID-19, items are related to having trouble in daily life due to burnout in relation with the pandemic and related situational factors. The original Cronbach alpha is 0.92. In the present study, Cronbach's alpha internal consistency is also 0.92.

Depression Anxiety Stress Scale-21 (DASS-21). The scale is a 4-point-rating-scale (0=never to 3=always) developed by Lovibond and Lovibond (1995) to measure the frequency of depression, anxiety and stress symptoms during the past week. A sample depression item is "I couldn't seem to experience any positive feeling at all", a sample anxiety item is "I was worried about situations in which I might panic and make a fool of myself", and a sample stress item is "I found it hard to wind down". Yıldırım et al. (2018) adapted the scale into Turkish and internal consistency measured with Chronbach's alpha was calculated as 0.89 for depression, 0.87 for anxiety, and 0.90 for stress. In the present study, internal consistency measured with Chronbach's alpha was calculated as 0.81 for depression, 0.73 for anxiety, and 0.81 for stress.

Maslach Burnout Inventory – Student Scale (MBI-SS). The seven-point Likert-type inventory was developed by Schaufeli et al. (2002) to measure academic burnout in university students. The scale consists of 3 factors (exhaustion, cynicism, and efficacy) and 16 items with. The Turkish version of the scale was adapted by Capri et al. (2011) and consists of 3 factors and 13 items. It was adapted as a 5-Likert type scale (1=never to 5=always). A sample item is "I feel exhausted at the end of university day". The internal consistency coefficients measured with Cronbach's Alpha for the Turkish form were calculated as 0.76, 0.82 and 0.61 for the 3 factors. In the present study, the Cronbach's Alpha coefficient for the total scale was 0.78, and 0.88, 0.84, 0.76 for the exhaustion, cynicism and efficacy factors respectively.

Data Analyses

In the study, COVID-19 burnout was determined as the independent variable, academic burnout as the dependent variable, and DASS-21 and depression scale of the DASS-21 as the mediator variables. SPSS 21 Package program and SPSS Process V3.5 were used to analyze the data (Hayes, 2018). In order to examine the mediating role of emotional distress measured by DASS-21 total score and depression symptoms measured by the depression scale of the DASS-21, PROCESS Macro conditional process analysis, developed by Hayes (2012), was used. The mediating effect in the research model was examined using the Multiple Mediation Model 4 and with a 95% confidence interval on 5000 bootstrap samples. In the current study, an analysis model was created with COVID burnout as the predictor variable, academic burnout as the predicted variable, and DASS-21 and depression scale of the DASS-21 as the mediator variables.

Results

Descriptive statistics including mean values, standard errors, and standard deviation are shown in Table 1.

Table 1. Mean and standard deviation of research variables

Variables	N	$\bar{X}$	S.E.	S.D.
1.COVID-19 Burnout	311	7.99	0.24	4.23
2. Depression	311	5.57	0.20	3.56
3. Anxiety	311	8.01	0.24	4.35
4. Stress	311	21.58	0.58	10.32
5. DASS-21 Total	311	13.47	0.29	5.17
6. Exhaustion	311	9.61	0.23	4.06
7. Cynicism	311	12.98	0.18	3.27
8. Efficacy	311	36.06	0.46	8.15
9. Academic Burnout Total	311	26.89	0.55	9.68

Pearson correlation analysis was carried out to determine the relationship between COVID-19 burnout, academic burnout and its subscales (exhaustion, cynicism and efficacy), and DASS-21 and its scales (depression, anxiety, and stress). There was a positive significant correlation between COVID-19 burnout and depression scale (r=0.25), anxiety scale (r=0.40), stress scale (r=0.32), and DASS-21 total score (r=0.38), exhaustion (r=0.24), cynicism (r=0.19) and academic burnout total score (r=0.27). No significant correlation was found between COVID-19 burnout and efficacy (r=0.43). There was also a significant positive correlation between academic burnout and depression scale (r=0.41), anxiety scale (r=0.34), stress scale (r=0.36), DASS-21 total score (r=0.43), exhaustion (r=0.89), and cynicism (r=0.86). On the other hand, no significant correlation was found between academic burnout total score and efficacy (r=0.1). In addition, the correlation coefficients between academic burnout subscales and DASS-21 subscales vary from (r=-0.12) to (r=0.50). Therefore, there was no risk for multicollinearity problems, and subscales measure different constructs (see table 2).

Table 2. Results of Pearson product moment correlation analysis

Variables	1	2	3	4	5	6	7	8	9
1.COVID-19 Burnout	1								
2. Depression	0.25**	1							
3. Anxiety	0.40**	0.47**	1						
4. Stress	0.32**	0.61**	0.66**	1					
5. DASS-21 Total	0.38**	0.83**	0.81**	0.90**	1				
6. Exhaustion	0.24**	0.50**	0.35**	0.41**	0.50**	1			
7. Cynicism	0.19**	0.44**	0.33**	0.34**	0.44**	0.79**	1		
8. Efficacy	0.43	0.32**	-0.12*	-0.19**	-0.25**	-0.33**	-0.35**	1	
9. Academic Burnout Total	0.27**	0.41**	0.34**	0.36**	0.43**	0.89**	0.86**	0.01	1

*** p<0.01*

Linear regression analysis was performed to see whether COVID-19 burnout, and the DASS-21 determined academic burnout. As can be seen in table 3, COVID-19 burnout (ß = 0.12, p < 0.05) and DASS-21 (ß = 0.39, p < 0.001) predicted academic burnout, and 20% of the variance in academic burnout was explained by the predictor variables. Therefore, DASS-21 was accepted as a mediator in the model.

Table 3. Linear regression analysis

Variables	B	β	t	p
1.Constant	26.695		20.35	0.000**
2.COVID-19 Burnout	0.101	0.120	2.19	0.029*
3.DASS-21	0.308	0.389	7.08	0.000**

Dependent variable: academic burnout. R= 0.45, R2= 0.20, Adj. R2=0.20, F= 38.85, ** p<0.01, *p<0.05

Linear regression analysis was performed to see whether COVID-19 burnout, and the depression, anxiety, and stress scales of the DASS-21 determined academic burnout. As can be seen in table 4, 21% of the variance in academic burnout was explained by the predictor variables. COVID-19 burnout (ß = 0.12, p < 0.05) and depression (ß = .28, p < .001) predicted academic burnout. Whereas anxiety (ß = 0.11, p > .05), and stress (ß = .06, p > .05) were not significant predictors of academic burnout. Therefore, depression was chosen as a mediator in the model.

Table 4. Linear regression analysis

Variables	B	B	t	p
1.Constant	26.34		19.76	0.000**
2.COVID-19 Burnout	0.10	0.12	2.32	0.021*
3.Depression	0.54	0.28	4.34	0.000**
4.Anxiety	0.26	0.11	1.64	0.100
5.Stress	0.12	0.06	0.87	0.384

Dependent variable: academic burnout. R= 0.46, R2= 0.21, Adj. R2=0.20, F= 20.58, ** p<0.01, *p<0.05

The mediating role of DASS-21, on the relationship between COVID-19 burnout and academic burnout was assessed through a mediation analysis. As can be seen in table 5, the effect of the independent variable on the mediator variable showed that COVID-19 burnout determined DASS-21 (B = 0.4015, 95% CI [0.2910; 0.1576], t:7.145, p<0.001). The effect of the mediator variable on the dependent variable showed that DASS-21 determined academic burnout (B = 0.3075, 95% CI [0.2221; 0.3929], t: 7.0850, p<0.001). When the mediator variable was included in the model, the effect of the independent variable on the dependent variable showed that COVID-19 burnout determined academic burnout (B = 0.1014, 95% CI [0.0104; 0.1925], t: 2.1914, p<0.05).
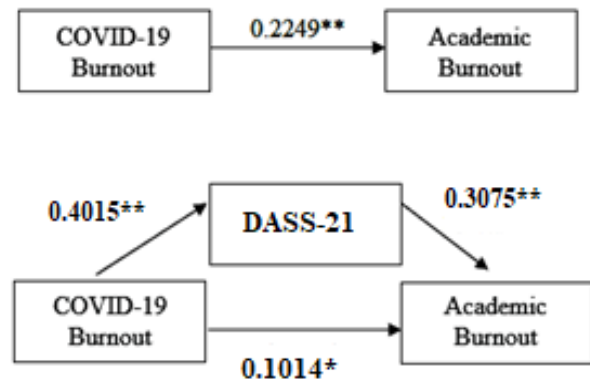
Figure 1. Results of mediation analysis with DASS-21 as mediator

Aslı Burçak Taşören & Sümeyye Burhan

Table 5. Effects between COVID-19 Burnout, Academic Burnout and DASS-21

Relations between Variables	B	S.E.	t	p	%95 CI LL	UL	R²
Total Effect (*c*)	0.22**	0.04	4.87	0.000	0.13	0.31	0.07
COVID-19 Burnout → DASS-21 (a)	0.40**	0.05	7.14	0.000	0.29	0.15	0.14
COVID-19 Burnout → Academic Burnout (c')	0.10*	0.04	2.19	0.029	0.01	0.19	
DASS-21 → Academic Burnout (b)	0.30**	0.04	7.08	0.000	0.22	0.39	0.20

B: Unstandardized Regression Coefficient, S.E: Standard Error, **p<.001, *p<.05, n=311, k=5000 Bootstrap Sample, R2: Variance Value, t: Degree of Freedom, CI = Confidence Interval, LL = Lower Limit, UL = Upper Limit

According to the bootstrap-based effect size values, with the inclusion of the mediator variable in the model, the initial effect of 0.23 between COVID-19 burnout and academic burnout decreased to 0.10 and remained significant (see table 6). The results indicate that DASS-21 partially mediate the relationship between COVID-19 burnout and academic burnout.

Table 6. Bootstrap-Based Single Mediation Effect

The Relationship of Mediating role of Depression	Total Effect	Direct Effect	Indirect Effect	Bootstrap 95% CI LL-UL	Type of Mediation Effect
COVID-19 Burnout and Academic Burnout	0.22	0.10	0.12	0.07 0.18	Partial

CI = Confidence Interval, LL = Lower Limit, UL = Upper Limit

The mediating role of depression symptoms, in the relationship between COVID-19 burnout and academic burnout was assessed through a second mediation analysis. As can be seen in table 7, the effect of the independent variable on the mediator variable showed that COVID-19 burnout determined depression symptoms (B = 0.1103, 95% CI [0.0630; 0.1576], t:4.5871, p<0.001). The effect of the mediator variable on the dependent variable showed that depression symptoms determined academic burnout (B = 0.7012, 95% CI [0.5007; 0.9017], t: 6.8832, p<0.001). When the mediator

variable was included in the model, the effect of the independent variable on the dependent variable showed that COVID-19 burnout determined academic burnout (B = 0.1476, 95% CI [0.0601; 0.2351], t: 3.3176, p<0.001).
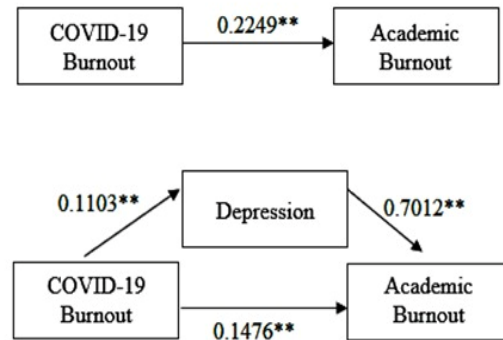
Figure 2. Results of mediation analysis with depression symptoms as mediator

Table 7. Effects between COVID-19 Burnout, Academic Burnout and Depression

Relations between Variables	B	S.E.	t	p	%95 CI LL	UL	R²
Total Effect (*c*)	0.22**	0.046	4.87	0.000	0.13	0.31	0.07
COVID-19 Burnout → Depression (a)	0.11**	0.02	4.58	0.000	0.06	0.15	0.06
COVID-19 Burnout → Academic Burnout (c')	0.14**	0.04	3.31	0.000	0.06	0.23	
Depression → Academic Burnout (b)	0.70**	0.10	6.88	0.000	0.50	0.90	0.19

B: Unstandardized Regression Coefficient, S.E: Standard Error, **p<0.001, n=311, k=5000 Bootstrap Sample, R2: Variance Value, t: Degree of Freedom, CI = Confidence Interval, LL = Lower Limit, UL = Upper Limit

According to the bootstrap-based effect size values, with the inclusion of the mediator variable in the model, the initial effect of 0.23 between COVID-19 burnout and academic burnout decreased to 0.15 and remained significant (see table 8). The results indicate that depression symptoms partially mediate the relationship between COVID-19 burnout and academic burnout.

Table 8. Bootstrap-Based Single Mediation Effect

The Relationship of Mediating role of Depression	Total Effect	Direct Effect	Indirect Effect	Bootstrap 95% CI	Type of Mediation Effect
COVID-19 Burnout and Academic Burnout	0.22	0.14	0.07	0.13 0.31	Partial

CI = Confidence Interval, LL = Lower Limit, UL = Upper Limit

Discussion

During the pandemic, day-to-day routines, behavioral patterns have changed due to lockdowns, restrictions, and social distancing. Factors like fearing the virus would infect self and loved ones, decrease in physical activity, not eating well, changes in sleep patterns, economic problems, unpredictability of the future have adversely contributed to physical and psychological health, particularly depression and anxiety symptoms (Ceviz, et al., 2020; Fila-Witecka et al., 2021; Li, Hafeez & Zaheer, 2020; Marler et al., 2021). In the present study COVID-19 burnout was associated with emotional distress which further supports these findings in the current situation in which most restrictions are abandoned. In burnout, the personal experience of stress occurs in a social context and is related with the individuals' conception of self and others (Maslach & Leiter, 2016). Given the unique context created by the pandemic, COVID-19 burnout is related with the overwhelming outcomes and related stress with the pandemic. COVID-19 burnout strikes out as feelings of hopelessness and helplessness related with the ambiguity of the pandemic and is an important predictor of depression, anxiety, and stress (Moroń et al., 2021). As stated, uncertainty caused by the COVID-19 and increases in social restrictions have led to significant changes in daily routines, lifestyle, and the long-lasting nature of this process have led to increases in levels of stress, anxiety, burnout, fear, and frustration (Le et al., 2020). The data was collected at the beginning phase of the removal of restrictions, this seems an important turning point in the timeline of the pandemic. Since the beginning of the outbreak of the pandemic, for some students, the aforementioned factors may have accumulated to the point of burnout. Thus, a relationship between COVID burnout and emotional distress was highly anticipated at this point. As previously mentioned, studies conducted with university students report increased depression, anxiety, and stress symptoms during the pandemic (Elmer et al., 2020; Mishra & Kumar, 2021; Son et al., 2020), and our study supports these findings with the addition of COVID burnout.

Psychological resilience, coping skills, and social support notably stand out as intermediating factors in this process. Restrictions during the pandemic causing social isolation were found to be related with negative appraisal of personal resilience (Mishra & Kumar, 2021), which draws attention to the importance of coping skills, resilience and social support in handling the adverse effects of the restrictions. It is believed that having used positive coping strategies in the beginning of the pandemic, such as acceptance, planning, and seeking emotional support (Babicka-Wirkus, 2021) may also be helping in the present transition phase we currently are in. Importantly, not being able to return to normal life may create ongoing stress which can negatively affect psychological resilience which in turn would increase burnout.

Another result of the present study indicates that COVID-19 burnout and emotional distress predicts academic burnout. Also, COVID-19 burnout and the depression scale of the DASS-21 predicted academic burnout. Transition to online learning in the beginning of the pandemic was reported with an increase in stress levels of students. Besides the increased difficulties of online learning, decreased motivation, feelings of isolation, being separated from friends, increased difficulties in understanding course content during online learning, the nature of some course content making it hard to learn through online education, technological issues, and unfavorable home environment, have all played an important role in the ability of students to successfully undertake their studies (Post, Vitry & Baldock, 2021; Turan & Gürol, 2020; Sahu, 2020). In terms of academic engagement and academic burnout, Wang et al. (2021) found a negative correlation between academic engagement, psychological capital and academic burnout during the pandemic, suggesting that as psychological capital

increased, academic burnout would decrease and foster academic engagement. In another study with similar findings, Capone et al. (20210) found that academic burnout was negatively related with student engagement and well-being during the pandemic. The authors did not find any relationship with fear of COVID, but still these results should be evaluated in light of the adverse effects of the pandemic both on emotional distress and academic burnout. Although none of these authors have studied COVID related burnout and academic burnout in combination with emotional distress, the studies are in line with our findings, suggesting that COVID burnout and emotional distress are important determinants of academic burnout.

In the present study, we also found that emotional distress partially mediated the relationship between COVID-19 burnout and academic burnout. But when the model was tested with the scales of the DASS-21, the relationship between COVID-19 burnout and academic burnout was partially mediated only by the depression scale. It is known that many personal and situational factors contribute to emotional distress, which may in turn contribute to the relationship between COVID-19 burnout and academic burnout. Apparently the COVID-19 pandemic is having a sustained negative impact on student mental wellbeing and is related with increased perceived stress (Savage et al., 2021). Although we found a relationship between stress and COVID burnout, as well as academic burnout, interestingly stress and anxiety did not mediate the relationship between these variables. The reason why stress in this study was associated with academic burnout, but did not operate as a mediator, may be related to the fact that students' stress levels may have decreased due to school re-opening after much time spent away from peers. As this is a transition period, the long-awaited re-access to face-to-face education, socializing, and social support from peers may have motivated students both overall and also towards academic life. Consequently, transitioning back to social life may led some students to believe that there is nothing more to worry about the pandemic, and thus anxiety and fear linked to the pandemic may

have decreased substantially. On the other hand, the fact that depression symptoms did in fact mediate the relationship between COVID-19 burnout and academic burnout, may be due to the more stable nature of depression symptoms. That is to say, some students may have a relatively stable and pervasive depressive thinking style. This disposition may have been triggered during the pandemic and transformed into long-term and more stable symptoms, adversely affecting cognitions, thinking styles, including interpretations and inferences. The changes in learning practices may have also contributed to loss of academic motivation, and relatedly academic burnout.

Conclusion, limitations, and suggestions for future research

The disruption of routines, sense of safety and stability due to social restrictions and fear created by the pandemic, have created extensive psychological outcomes. As stated, maintaining positive mental health was as crucial as maintaining physical health during the pandemic, and in these terms, individuals had differing experiences during the pandemic. In light of previous studies and with the present findings, it can be concluded that the pandemic may lead to decline in psychological well-being, and the emotional distress it creates reflects on the studies of university students, which in turn may create academic burnout. It is clear that the sudden outbreak of an unexpected pandemic has affected the lives of every single person, though the nature and intensity will differ from individual to individual. University students are a group which have gone through this phase in their own way, given the unique circumstances they have faced, mainly the rapid switch to online education, having to leave their student housing or dormitories, and going back to live with parents. Though many common characteristics exist, personal experiences vary. Having to take care of sick family members, losing loved ones, separating from friends, economic problems, strike as some of the common problems faced by many students. Studies pinpoint the adverse effects of uncertainty

created by the process, in this case uncertainty seems an important contributor to emotional distress including depression, anxiety and stress symptoms. Being anxious about getting ill and infecting others with the virus, restrictions, decrease in social support due to isolation, and transition to online education are among the most common adversities. In addition to these factors, having trouble completing academic tasks, trying to adjust to online education, have been hard for many students. And although limited in number, studies show that decrease in psychological well-being is related with academic problems during the pandemic. In this respect, social support was determined as a helpful mechanism in maintaining well-being despite academic stress (Green et al., 2021) and aided in student engagement during the pandemic (Koob et al., 2021). Social support was also stated as an important factor which helped in coping with stress and was positively related with academic performance (Malik & Javed, 2021). Emotional flexibility is another similar factor which plays a regulating role in the stress and burnout experienced by the pandemic (Yıldırım and Solmaz, 2020).

In summary it is believed that social support, psychological resilience, psychological flexibility and relatedly positive emotion regulation skills are some of the factors which continue to help during the present phase in which students are trying to adapt to blended, hybrid education, and returning to campus. It should not be forgotten that although there are common difficulties many students have faced, each young person experienced these in his/her own unique way, depending on situational factors as well as personal characteristics. And in addition to personal factors, institutional factors such as university regulations and rules, and instructors' support during the transition, whether the student attended class or preferred to participate online in hybrid/blended courses, and peer support are among many other factors which may contribute to academic burnout. It is further suggested that university counseling centers should be easily accessible when needed, and that supporting students with higher levels of COVID-19 anxiety and emotional distress is essential in decreasing the long-term negative impacts of the pandemic on academic burnout in university students.

The study was cross-sectional, which doesn't allow for causal inferences. The gender imbalance is one of the major limitations of the study. Possible personal and situational factors which may affect outcome such as present physical illness, social support, whether the students lost a loved one because of the virus, are not known. Also we didn't include psychological resilience which stands out as an important mediator variable. Additionally, externalizing behavioral problems and attention problems were also documented in university students during the pandemic (Copeland et al., 2021). These findings indicate that emotional and behavioral functioning other than depression, anxiety, and stress symptoms should be considered. In future studies carried out in the present transition phase, university students' levels of intolerance to uncertainty, coping with stress and adaptation skills can be examined in relation to academic burnout and academic engagement.

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