The Relationship between Covid-19 Anxiety, Burnout, Mental Well-Being, and Resilience ın Student-Athletes and Non-Student-Athletes

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Abstract

The COVID-19 pandemic process has been associated with particularly strong declines in the academic, social, and psychological conditions of university students. Concerns about COVID-19 have often been correlated with worsening well-being. Besides the burdens most university students face, student-athletes have also been exposed to these psycho-social consequences. Therefore, it is important to examine the protective factors against psychological adjustment skills. Concepts such as resilience and endurance, which are defined as one's ability to react to difficulties, can also be protective factors. With the ongoing pandemic process, resilience and endurance in university students who are athletes and non-athletes have not yet been examined in this context. For this reason, this study aims to examine the mediator role of resilience in the relationship between mental well-being, COVID-19 anxiety, and burnout. 778 university students, 412 athletes and 366 non-athletes, studying in different departments of the university participated in the study. As data collection tools, COVID-19 related anxiety scale, short psychological resilience scale, Warwick-Edinburgh mental well-being scale short form and maslach burnout scale student form were used. The relationships between the anxiety, burnout, mental well-being and psychological resilience levels of the athletes and non-athletes were determined by the Pearson product moment correlation coefficient. Structural equation modeling was used in data analysis to determine the direct and indirect predictive effects between variables. The results showed that resilience was negatively related to COVID-19 anxiety and burnout, and positively related to mental well-being in both groups. Resilience mediated significant effects on COVID-19 anxiety, burnout, and mental well-being for students in both groups.

Keywords: *University students, Spor, COVID-19 anxiety, Burnout, Mental well-being, Resilience*

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INTRODUCTION

The SARS-CoV-2 virus is a crisis on a global scale which was first identified in Wuhan, China on 10 December 2019, and as we are approaching the beginning of 2023, it has already infected more than 4.5 million people worldwide and caused more than 300,000 deaths (World Health Organization, 2020). This epidemic, which is highly contagious from person to person and spreads easily to close contacts of infected individuals, is a severe acute respiratory viral infection with highly contagious feature (Holshue et al., 2020; Hughes et al., 2020). This situation, which is defined as COVID-19 syndrome, causes severe respiratory viral infection in infected individuals, as well as many negative neurocognitive and psychological adaptation states such as weakness, headache, inability to perform daily physical tasks(Baig, 2020), depression, anxiety, stress, nervousness, insomnia (Pfefferbaum & North, 2020). On the other hand, following the WHO's attitude, many countries have applied a state of national isolation to help prevent the further spread of COVID-19. Unfortunately, lockdowns and subsequent developments have led to worsening mental health in general populations around the world (Graupensperger et al., 2020; Xiong et al., 2020). After the outbreak of the epidemic, great efforts have been made in SARS-CoV-2 infection and prevention studies (Jimeno-Almazán et al., 2021). Vaccines have now been developed and many pharmacological treatments have been used, but few have shown any real effect on survival against this infection, and none have been shown to reduce the progression of the disease to persistent symptoms. Therefore, in addition to providing vaccinations in the global arena, studies on solutions for the consequences of the infection continue. (Dong et al., 2020; Fuller et al., 2021). However, the World Health Organization warns that the virus remains a significant threat.

Although the entire population felt the effects of this global epidemic, university students are among those most strongly affected by this epidemic, after healthcare workers (Aristovnik et al., 2020). The negative effects of the epidemic process were also added to the troubles such as academic success, career anxieties, being away from family, passing classes, and financial difficulties (Son et al., 2020; Aristovnik et al., 2020). Even before the pandemic, students around the world experienced increased levels of anxiety, depressed moods, lack of self-confidence, psychosomatic problems, and suicidal tendencies (Holm-Hadulla & Koutsoukou-Argyraki, 2015). On the other hand, physical inactivity for this group can also be the effect of the pandemic on its own (Hall-López, 2020). Although physical inactivity is not contagious, it is an important cause of chronic diseases, is responsible for the premature death of millions of people, and costs billions of dollars in the health systems of countries (Lim et al., 2012). Physical inactivity has been associated with a higher risk for COVID-19 outcomes (Silva et al., 2022). In general, it has been determined that students face social, psychological and physical problems due to the fact that they cannot leave the house during the pandemic and computer-based education activities with distance education (Toprakçı, Hepsöğütlü and Toprakçı, 2021; Toprakçı and Hepsöğütlü, 2022). Increases in physical inactivity have been reported during university years along with previous studies (Crombie et al., 2009; Kwan et al., 2012; Pengpid et al., 2015; Pullman et al., 2009). Thus, considering the above-mentioned situations (Covid-19 process, quarantine, transition to distance education career anxiety, academic success, physical inactivity, etc.) additional resources and services might be needed to determine the mental health and psychosocial functions of university students and cope with the mental health reflections of them.

Burnout

Burnout has recently emerged as a critical risk factor. Burnout, which first appeared in work life, was defined by (Maslach & Jackson, 1981) as "the exhaustion that occurs as a result of the intense use of personal resources by the individual in the face of intense stress". Unlike depression, the most common symptoms of burnout, particularly work-related symptoms, include emotional exhaustion, cynicism, depersonalization, and a decrease in the sense of personal accomplishment (Bradley & Chahar, 2020). According to the original Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981), burnout is defined as three-dimensional. These are emotional exhaustion (depletion of emotional resources due to demands arising from interpersonal communication with other people), depersonalization (negative and insensitive attitude towards the individuals they care for and serve), and personal accomplishment (the tendency to evaluate themselves negatively in terms of the services they give to individuals). While the concept of burnout was previously used in work life, today it is also intensively studied in the field of education (especially university students) (Boyaci & Özhan, 2018; Madigan & Curran, 2021; Vizoso et al.,

2019). University students are having mental health problems such as depression and burnout under increased life stresses such as negativities in the Covid-19 process, passing exams, getting a diploma, living away from home, financial concerns, and future expectations (Pitt et al, 2018). On the other hand, for athlete university students, in addition to these problems, the difficult living conditions that sports life brings might indicate that they may experience a sense of burnout. Student-athletes may also feel burnout from time to time under difficult conditions such as quarantine due to COVID-19, being isolated, not being able to participate in sports activities, and the difficulties brought by the academy, as well as the intensity of physical activity brought by sports, fatigue, preparation for competitions, and competition stress. And also it is expected for athlete students; physical demands (e.g. maintaining physical fitness and health), psychological demands (e.g. fear of failure, lack of confidence, pressure to perform well), environmental demands (e.g. exposure to too much media pressure, too much work time, post-sport career options), expectations and pressures about performing at a high level (e.g., performing in line with expectations, fear of what others think) and relational problems (e.g., personal relationship problem, hostile attitude of competitors, negative relationships with sponsor, conflict with coach) compared to non-athlete students differs too much (Weinberg & Gould, 1999). For this reason, students need mental health interventions (especially student-athletes).

Mental well-being and psychological resilience

Well-being, one of the basic concepts of positive psychology, has a significant impact on the quality of life of individuals. Well-being is often associated with the conceptualization of the "good life" (Carlisle & Hanlon, 2008). Emotional, social, and psychological well-being is considered positive mental health (Ryan & Deci, 2017), which is associated with autonomous self-management of health and resilience to challenges (Keyes, 2005). Resilience is the psychological characteristic of having positive tendencies that enable individuals to cope effectively with stressful situations (Ehrich et al., 2017). Studies show that both the existence of resilience is universal, and that resilience has protective effects on the physical and mental states of individuals who experience or face problems (Lee et al., 2018). Considering that the mental health of university students may have been seriously affected by the pandemic and quarantine, and in the face of the difficulties that academic life may have brought, these two important positive moods can be considered as a coping mechanism.

One of the important determinants of mental health when faced with difficulties is the level of resilience (Fletcher & Sarkar, 2016). To this end, considering the long-standing relationship of sport with the development of this beneficial psychological trait athletes are likely to have an advantage over non-athletes (Caddick & Ryall, 2012). Because exercise provides many psychological and physiological benefits such as cardiovascular, pulmonary, metabolic, inflammatory, musculoskeletal disease, positive mood, and resilience (Fiuza-Luces et al., 2013; Hegde, 2018; Heiston et al., 2020; Valenzuela et al., 2019). When the studies on sports, physical activity and endurance are examined, it is seen that sports and physical activity play an important role as a protective factor in the development of psychological resilience, are a tool to increase psychological resilience, positively affect their psychological well-being, and the psychological resistance of those who do sports is better (Gilligan, 1999; Demir & Çiftçi, 2020; Tükel, 2021). Therefore, it can be assumed that an optimal exercise prescription will benefit individuals with persistent COVID-19 symptoms. Some studies support this view, finding that athletes are more resilient than non-athletes (Guillén & Laborde, 2014; Laborde et al., 2016). So, it can be argued that athletes may be better equipped than non-athletes to cope with the psychological burden of the pandemic because of their conditioning to thrive in harsh environments and competition.

There are limited studies in the literature on the psychological or mental health effects of the pandemic on university students (athletes and non-athletes) (Cao et al., 2020; Grubic et al., 2021; Moore et al., 2022; Wang & Zhao, 2020). Findings from these studies converge on the increase in mental health problems among university students. Therefore, there is an urgent need to assess the effects of the pandemic on the mental health and well-being of students in this group (Zhai & Du, 2020; Holmes et al., 2020). In conclusion, given the ongoing nature of the COVID-19 pandemic and its profound and pervasive effects on mental health worldwide, there is a need to determine factors (such as mental well-being and resilience) that may protect against the development of anxiety, depression, burnout, and other psychological problems. In this determination, it is especially important to investigate whether sports are a protective factor. This study examines the relationships between COVID-19 anxiety, burnout, mental well-being, and resilience of athletes and non-athletes studying in higher education institutions

in Turkey during the COVID-19 epidemic, which has not yet completely disappeared from our lives. And to look at the mediating effect of resilience on COVID-19 anxiety, burnout, and mental well-being. In this context, the first hypothesis is that the resilience and mental well-being levels of the athlete group will be higher, while the anxiety and burnout levels will be lower than the non-athlete group. The second hypothesis is that for the athlete group, resilience will be negatively related to COVID-19 anxiety and burnout, and positively related to mental well-being. The third hypothesis is that for the non-athlete group, resilience will be negatively related to CoVID-19 anxiety and burnout, and positively related to mental well-being. If confirmed, the findings from this study provide a theoretical basis and may suggest possible applicable strategies for psychological interventions during COVID-19.

METHOD

1. Research Design

The research has designed as a cross-sectional study. Cross-sectional studies are characterized by the collection of relevant information (data) at a given point in time (Kesmodel, 2018). For this purpose, a structural equation model was used to determine the relationships between Covid-19 anxiety, burnout, mental well-being, and resilience. Structural equation modeling (SEM) is a multivariate statistical approach that is used to test hypotheses about "causal" relationships between measured variables and latent variables, and that combines analyzes such as variance, covariance analysis, factor analysis, and multiple regression to predict dependency relationships (Dursun & Kocagöz, 2010; Sümer, 2000).

2. Study Group

Two groups were examined separately in the study. The first group is the group of students who do not do sports in any branch and are not members of a sports club. The other is the student group of athletes who actively do sports, participate in national or international competitions at least once, and are members of a sports club. 778 students, aged between 17 and 27 (non-athlete group average = 21.08, / n=366) (athlete group average = 22.18, / n=412) who continue their education in different departments of the relevant university, were reached by convenience sampling technique. The sample group consisted of 313 women (40.2%) and 465 men (59.8%). 29.7% of the participants are 1st-year, 21.5% are 2nd-year, 23% are 3rd-year and 25.8% are 4th-year students. Participants are university students 48.5% of whom are aged 17-21, 44.7% aged 22-24, and 6.8% aged 25 and over.

3. Data Collection Instruments

COVID-19-related Anxiety Scale

The COVID-19-related anxiety scale used by (Graupensperger et al., 2020) and (Hensel et al., 2022) in their studies has 4 items and a single factor. The scale is a 5-point Likert-type structure ranging from 1 (does not apply at all) to 5 (strongly applies) and measures participants' responses to the following questions: "I am nervous when I think about current circumstances", "I am worried about my health", " I am worried about the health of my family members" and "I feel stressed about leaving my home." The internal consistency levels of the samples consisting of university student-athletes were found as Cronbach's a = 0.81 by (Graupensperger et al., 2020). It showed similar reliability in the sample of this study (Cronbach's a = 0.76).

Brief Resilience Scale (BRS)

The Brief Resilience Scale (BRS) was developed by (Smith et al., 2008) and adapted to Turkish language by (Dogan, 2015). It is a 6-item, self-report-style measurement tool (e.g., I tend to bounce back quickly after hard times). BRS is a 5-point Likert scale. It has an answer key of "Strongly disagree" (1), "Disagree" (2), "Neutral" (3), "Agree" (4), and "Strongly agree" (5). Items 2, 4, and 6 in the scale are reverse-coded. High scores obtained after reverse-coded items were translated indicate a high level of psychological resilience. The internal consistency coefficient for BRS was found to be .83 by (Dogan, 2015). This study showed similar reliability (Cronbach's a = 0.78).

Warwick-Edinburgh Mental Well-Being Scale Short Form

The Warwick-Edinburgh Mental Well-Being Scale was developed by (Tennant et al., 2007). The validity and reliability study for the short form of the scale was conducted by (Demirtas & Baytemir, 2019). This scale, which aims to examine the psychometric properties of university students, consists of 7 items and is a 5-point Likert type ranging from 1 (none of the time) to 5 (all of the time) (e.g., I've been feeling close to other people). The Turkish adaptation of the 14-item long form of the scale was carried out by (Keldal, 2015). The validity and reliability of the short form of the scale and study revealed very

similar results in terms of validity and reliability. The one-factor structure was confirmed in both of the aforementioned studies. The Cronbach's Alpha reliability coefficient was calculated as .86 for the first study group and .84 for the second study group. In the sample of this study, it was found to be .74.

Maslach Burnout Inventory Student Survey

MBI-SS was developed by (Schaufeli et al., 2002) and adapted to be used on students and the reliability and validity study on university students in our country was conducted by (Capri et al., 2011). The scale consists of 13 items and 3 factors (e.g., I feel used up at the end of a day at school). It has been concluded that the 7-point rating format is not suitable for Turkish culture. Therefore, in the adaptation study conducted by (Capri et al., 2011), a 5-point rating (never, sometimes, usually, often, always) format was adopted. When the results obtained within the scope of the reliability studies of MBI-SS are examined, the Cronbach Alpha internal consistency coefficient was found to be 0.76 for the first sub-factor, 0.82 for the second sub-factor, and 0.61 for the third sub-factor. The results obtained showed similar reliability in the sample of this study (Cronbach's a = 0.77, 0.80, 0.72).

4. Procedure and Data Analysis

Before starting the study, ethics committee approval was obtained from the Ethics Committee of the Faculty of Sport Sciences of that university in order to conduct the research. Adhering to legal procedures, a face-to-face physical questionnaire was applied to students studying at a public university located in the eastern part of Turkey. The data collection process was completed within 20 days. In 12 of the physically prepared questionnaires, missing data was determined and removed and then the obtained data were analyzed. Extreme value, normality, and homogeneity tests were applied. At the last stage, normality values were examined using AMOS software and it was determined that the data set showed a normal and homogeneous distribution without any transformation.

After providing the parametric conditions, confirmatory measurement and structural equation models were created and tested separately for the relationships of the scales in the research. The relationships between the levels of anxiety and burnout related to COVID-19, and mental well-being and resilience levels of athlete and non-student-athletes were determined by using the Pearson moments product correlation coefficient and the effect of resilience on mental well-being, COVID-19-related anxiety, and burnout was determined using a structural equation model. During the research process, all analyzes were performed using SPSS 22 and AMOS package programs.

FINDINGS

In the study, first, descriptive statistics and correlation results were given for the variables of psychological resilience, COVID-19 anxiety, mental well-being, and burnout. The independent samples t-test was used to determine the significance of the difference between the averages of the homogeneously distributed scores obtained from the participants and whether the participants were athletes or not. The direct and indirect effects between these variables were tested with the structural equation model.

1. *Descriptive Statistics and Correlation Results*

Mean, standard deviation, skewness and kurtosis values, Cronbach's Alpha coefficients, and correlation values are given in Table 1. It was observed that the skewness and kurtosis values were within normal ranges (-1.96<x<1.96) and all Cronbach's Alpha coefficients were sufficient.

Table 1. *Descriptive statistics, reliability values, correlation results*

	α	X̄	SS	Skew.	Kurt.	1	2	3	4
Resilience	.725	19.45	.688	-.060	.379	1	-.210**	.466**	-.314**
COVID-19 Anxiety	.642	11.64	.914	-.205	-.382	-.210**	1	-.067	.114**
Mental Well-Being	.864	25.43	.777	-.218	-.249	.466**	-.067	1	-.359**
Burnout	.852	8.10	.840	-.006	-.119	-.314**	.114**	-.359**	1

**p<.01

In order to test the assumption that the data show the homogeneous distribution in the use of parametric tests, Levene's test was applied. As a result of the Levene homogeneity test, resilience (F= .138, p>.05), COVID-19 anxiety (F= 2.463, p>.05), mental well-being (F= 5.049, p>.05) and burnout (F=.203, p>.05) scores showed a homogeneous distribution. After it was determined that the scores

obtained from the participants showed a homogeneous distribution, independent samples t-test was applied and the results are presented in Table 2 below.

Table 2. *Findings on mean scores and being athletes*

	Group	N	X̄	SS	t	p
Resilience	Athletes	412	19.79	4.31	2.551	.011*
	Non-Athletes	366	18.93	4.31		
COVID-19 Anxiety	Athletes	412	11.22	3.59	-3.883	.000*
	Non-Athletes	366	12.28	3.27		
Mental Well-Being	Athletes	412	26.12	5.90	3.939	.000*
	Non-Athletes	366	24.37	5.24		
Burnout	Athletes	412	7.88	2.16	-3.251	.001*
	Non-Athletes	366	8.44	2.19		

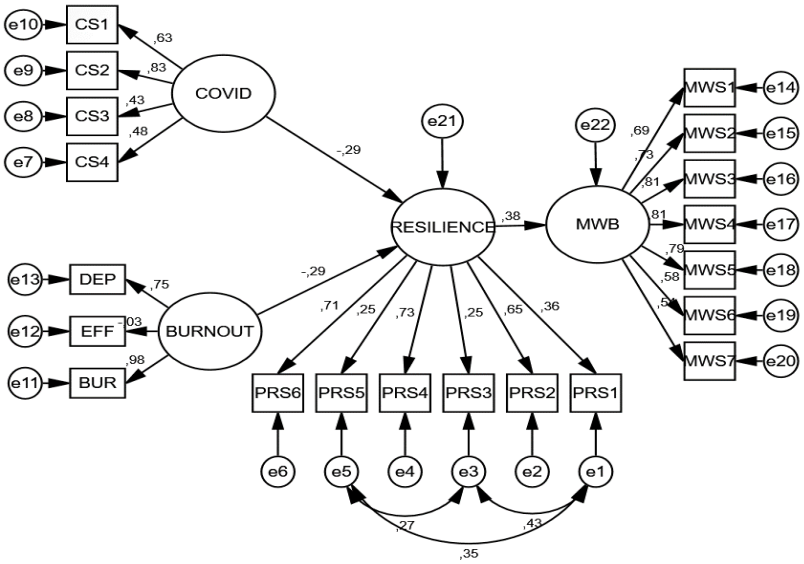
*p<.05

When Table 2 is examined, participants' resilience [t(676) = 2.551, p<.05], COVID-19 anxiety [t(676) = -3.883, p<.05], mental well-being [t(676) = 3.939, p<.05], and burnout [t(676) = -3.251, p<.05] mean scores show a significant difference between athletes and non-athletes.

To determine the source of this difference, when the mean scores of the participants were examined, in terms of the resilience and mental well-being variables, the resilience (X̄=19.79) and mental well-being (X̄=26.12) mean scores of the athletes were seen to be higher than the resilience (X̄= 18.93) and mental well-being (X̄=24.37) mean scores of the non-athletes. When examined in terms of COVID-19 anxiety and burnout variables, it was found that the mean scores of COVID-19 anxiety (X̄=12.28) and burnout (X̄=8.44) of non-athletes were higher than the COVID-19 anxiety (X̄=11.22) and burnout (X=7.88) mean scores of the athletes.

2. *Structural Equation Modeling*

Structural equation modeling was used by using the AMOS 21 program to test the hypotheses created after the relationship between the variables was determined in the research. As a result of the analyses, the athletes and non-athletes were evaluated separately. Considering fit index values of the tested model (χ2 =(1380.361/492)= 2.806; RMSEA= .03; AGFI= .88; GFI= .90; CFI= .89) it can be concluded that there is a significant relationship between the variables in the established model (p< 0.001) (Karagöz, 2019). The model established for the relationship between the variables in the athlete group is presented in Figure 1:



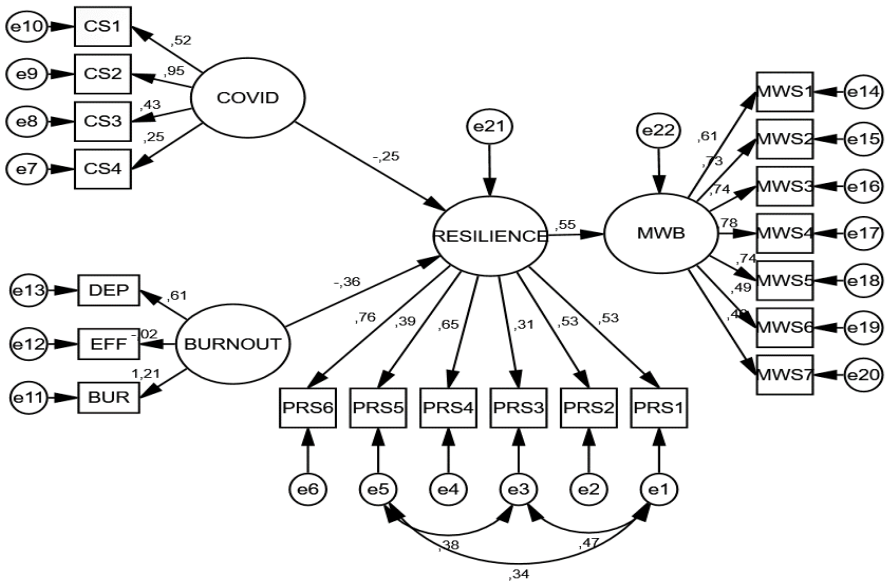
CS: *COVID-19 Anxiety Scale,* ***MWS:*** *Mental Well-Being,* ***PRS:*** *Resilience Scale,* ***DEP:*** *Depersonalization* ***EFF:*** *Efficacy,* ***BUR:*** *Burnout*

Figure 1: *(Model 1) Structural model of the Athlete Group*

It is seen that COVID-19 anxiety (β =-.29, p <.01) and burnout (β =-.29, p <.01) are significantly negatively related to resilience, and resilience has a significant positive effect on mental well-being (β =

.38, p <.01) in student-athletes. In this sense, it can be said that as the COVID-19 anxiety and burnout of the student-athletes decrease, their resilience will increase, and thus their mental well-being will increase.

In line with the hypotheses established for the purposes of the research, the fit index values of the model tested in the examination of the relationships between COVID-19 anxiety, burnout, mental well-being and psychological resilience of the students who do not do sports; Considering (χ2 = (1290.007/492) = 2.622; RMSEA= .03; SRMR= .09; AGFI= .88; GFI= .90; CFI= .89) it can be said that there is a significant relationship between the variables in the established model (p<0.001) (Yılmaz & Çelik, 2009; Karagöz, 2019). The model established for the relationship between the variables in the non-sports group is presented in figure 2:



CS: *COVID-19 Anxiety Scale,* ***MWS:*** *Mental Well-Being,* ***PRS:*** *Resilience Scale,* ***DEP:*** *Depersonalization* ***EFF:*** *Efficacy,* ***BUR:*** *Burnout*

Figure 2: *(Model 2) Structural model of the non-athlete group*

It is seen that COVID-19 anxiety (β =- .25, p <.01) and burnout (β =-.36, p <.01) are significantly negatively related to resilience, and resilience has a significant positive effect on mental well-being (β = .55, p <.01) in non-student-athletes. In this sense, it can be said that as the COVID-19 anxiety and burnout of the non-student-athletes decrease, their resilience will increase, and thus their mental well-being will increase.

CONCLUSION, DISCUSSION AND SUGGESTIONS

In this study, in which the relationship between COVID-19 anxiety, burnout, mental well-being and psychological resilience in athlete and non-athlete university students was tried to be determined, the relationship between them was discussed considering the constructed models.

In the study, a significant difference was found between the athlete and non-athlete groups in the scores of resilience, mental well-being, COVID-19 anxiety, and burnout. When the mean scores were examined, it was determined that the resilience and mental well-being scores of student-athletes were higher than non-athletes. On the other hand, COVID-19 anxiety and burnout scores were found to be higher in non-athletes. This indicates that student-athletes generally report low levels of psychological symptoms. Physical activity during COVID-19 is significantly associated with fewer symptoms of depression and anxiety (Deng et al., 2020; Planchuelo-Gómez et al., 2020; Schuch et al., 2020; Stults-Kolehmainen et al., 2020). In this context, it can be said that doing sports has a positive effect on resilience and mental well-being, and a reducing/protective effect on negative situations such as anxiety and burnout related to COVID-19. This result can be supported by studies conducted by various researchers during the pandemic, including the reduction or prevention of depressive symptoms in student-athletes (Hagiwara et al., 2021; Sanborn et al., 2021; Watts et al., 2022). This result supports the research hypothesis that student-athletes have high resilience and well-being and have lower levels of COVID-19-related anxiety and burnout.

In the study, different models were created by evaluating the groups with and without athletes in line with the structural equation model. In the first model created (Figure 1), it was determined that COVID-19 anxiety and burnout in student-athletes were negatively related to resilience, while resilience was positively related to mental well-being. Resilience potentially protects against negative consequences associated with anxiety, burnout, stress, and depression (Gerber et al., 2018; Haghighi & Gerber, 2019). At higher stress levels, it shows better mental well-being (Gerber et al., 2018). High levels of resilience are associated with lower burnout, depression, anxiety, stress, and other indicators of poor mental health (Hu et al., 2015; McGarry et al., 2013). Looking from the side of the athlete, it is associated with better mental health (Graupensperger et al., 2020; Lally, 2007). The size and increase of resilience play a positive role in the athletes' response to the stress and depression they have to overcome (Wu et al., 2021). Studies are showing that athletes have high levels of resilience in coping with the stress and anxiety they are exposed to (Jones et al., 2007; Mahoney et al., 2014). (Graupensperger et al., 2020) examined the relationship between mental health and athletic identity during the COVID-19 pandemic in American student-athletes and found that athletes who formed a strong athletic identity were associated with lower feelings of depression. On the other hand, it is thought that resilience is an important argument for sportive success that affects sportive performance (Madrigal et al., 2013). It has been started to be thought that achieving success will not be sufficient in sports only with physical capacity and that the resilience levels of the athletes should be high in order to achieve success (Küçük & Bozkurt, 2015). From this point of view, it can be attributed to the idea that resilience is a necessity for the competitive characteristics of athletes (Gucciardi et al., 2015). On the other hand, there is also evidence that there is no significant difference between the resilience of athletes and non-athletes during transition periods such as COVID-19 (Knowles et al., 2021). This study showed that the resilience gained with the athletic identity has a positive and high-level predictive effect on emotions such as anxiety, depression, and burnout in Turkish student-athletes. This finding supports our second hypothesis.

Another model of the study Model 2 showed that COVID-19 anxiety and burnout in non-athlete students were negatively related to resilience, while resilience was positively related to mental well-being, which is similar to Model 1. In this case, it can be said that as COVID-19 anxiety and burnout decrease, resilience increases, and thus mental well-being increases for both athletes and non-athletes.

According to the results of this study, resilience is a valuable resource that has a positive effect on students' mental well-being. In this regard, (Pitt et al., 2014) concluded in a study that there is an important personal capacity associated with university studies. The interaction between resilience and mental well-being is significantly and positively correlated (Gibbons et al., 2011; He et al., 2018; Ríos-Risquez et al., 2018). In other words, greater resilience indicates greater psychological well-being for the student. The findings of this study support the view in the literature that resilience is a key factor that well represents its relationship with mental well-being (Friborg et al., 2005; He et al., 2013; Wingo et al., 2014). As a result, due to the COVID-19 pandemic, most university students have been exposed to various changes in their daily lives. Considering that they have to endure many difficulties throughout their education, it is important to find ways to support the psychological adjustment levels of university students. At this point, the measures to be taken to protect the resilience and mental well-being of the students can alleviate the stress symptom levels that will develop in possible negative situations that they may encounter, and help them maintain their performance and success levels.

The findings of this study should be evaluated in the context of its limitations. First, since the research is relational and cross-sectional, and the sampling is based on convenience sampling, it is significantly limited in terms of revealing the cause-effect relationship. The fact that a clinical group was not included in the sampling should also be considered a limitation. Structural equation modeling in this study had sufficient statistical power, a sufficient number of cases per variable, and strong factor loadings; therefore, it is considered to have a sufficient sample size. In addition, the results of this study were obtained in certain situations resulting from the COVID-19 pandemic. Therefore, attention should be paid when generalizing the present findings to other stressful, uncertain, and unusual situations. Another limitation is that the study was conducted only with athletes and non-athletes at the higher education level in the sample of Turkey.

The results of this study show that improving resilience and mental well-being levels in both student-athlete and non-athlete students is a reducing/protective factor against the negative conditions they may encounter throughout their lives. It is thought that understanding that the negative reflections of the COVID-19 pandemic continue and that stressful situations that may arise in the social and academic environment can be encountered at any time will help the studies to be carried out, and the findings obtained will be an important data source for experts in this field.

Sporcu ve Sporcu Olmayan Üniversite Öğrencilerinde Covid-19 Kaygısı, Tükenmişlik, Mental İyi Oluş Ve Dayanıklılık Arasındaki İlişkiler

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Özet

COVID-19 salgını süreci, özellikle üniversite öğrencilerinin akademik, sosyal ve psikolojik durumlarındaki güçlü düşüşlerle ilişkilendirildi. COVID-19 ile ilgili kaygılar genellikle refahın kötüleşmesiyle ilişkilendirilmiştir. Çoğu üniversite öğrencisinin karşı karşıya kaldığı yüklere ek olarak, sporcu öğrenciler de bu psiko-sosyal sonuçlara maruz kalmıştır. Bu nedenle psikolojik uyum becerilerine karşı koruyucu etmenlerin incelenmesi önemlidir. Kişinin zorluklara karşı tepki verme yeteneği olarak tanımlanan dayanıklılık ve direnç gibi kavramlar da koruyucu faktör olabilir. Pandemi süreci devam etmesi ile sporcu ve sporcu olmayan üniversite öğrencilerde dayanıklılık ve direnç henüz bu bağlamda incelenmemiştir. Bu nedenle, bu çalışmanın amacı, psikolojik sağlamlığın, mental iyi oluş, COVID-19 kaygısı ve tükenmişlik arasındaki ilişkide düzenleyici rolünü incelemektir. Araştırma üniversitenin farklı bölümlerinde öğrenim gören 412 sporcu ve 366 sporcu olmayan toplam 778 üniversite öğrencisi katılmıştır. Veri toplama araçları olarak, COVID-19 ile ilişkili kaygı ölçeği, kısa psikolojik sağlamlık ölçeği, Warwick-Edınburgh mental iyi oluş ölçeği kısa formu ve maslach tükenmişlik ölçeği öğrenci formu kullanılmıştır. Sporcu ve sporcu olmayan öğrencilerin kaygı, tükenmişlik ve mental iyi oluş ve psikolojik sağlamlık düzeyleri arasındaki ilişkiler Pearson momentler çarpım korelasyon katsayısı ile belirlenmiştir. Veri analizinde değişkenler arasındaki doğrudan ve dolaylı yordayıcı etkileri belirlemek için yapısal eşitlik modeli kullanılmıştır. Çalışmanın sonuçlarına göre, her iki grupta da psikolojik sağlamlığın COVID-19 kaygısı ve tükenmişlik üzerinde negatif, mental iyi oluş üzerinde ise pozitif ilişkilidir. Dayanıklılık, her iki gruptaki öğrenciler için COVID-19 kaygısı, tükenmişlik ve zihinsel sağlık üzerinde önemli etkilere aracılık etmektedir.

Anahtar kelimeler: *Üniversite öğrencileri, Spor, COVID-19 kaygısı, Tükenmişlik, Mental iyi oluş, Dayanıklılık*

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Genişletilmiş Özet

Problem: Genel olarak öğrencilerin pandemi zamanında evden çıkamamaları ve uzaktan öğretimle bilgisayar ağırlıklı eğitim faaliyetleri nedeniyle sosyal, psikolojik ve fiziksel sorunlarla karşılaştıkları tespit edilmiştir (Toprakçı, Hepsöğütlü ve Toprakçı, 2021; Toprakçı ve Hepsöğütlü, 2022). COVID-19 salgınının süreğen doğası ve dünya çapında ruh sağlığı üzerindeki derin ve yaygın etkileri göz önüne alındığında, kaygı, depresyon, tükenmişlik ve diğer psikolojik sorunların gelişimine karşı koruma sağlayabilecek faktörlerin (mental iyi oluş, psikolojik dayanıklılık gibi) belirlenmesine ihtiyaç vardır. Bu belirleme de özellikle sporun koruyucu bir etken olup olmadığının araştırılması ayrı önem taşımaktadır. Bu çalışma, henüz tamamen hayatımızdan çıkmamış olan COVID-19 salgısı sürecinde Türkiye'de yükseköğretim kurumlarında eğitim gören sporcu ve sporcu olmayan öğrencilerin COVID-19 kaygısı, tükenmişlik, mental iyi oluş ve psikolojik sağlamlıkları arasında ilişkileri incelemektir. Bu bağlamda birinci hipotez, sporcu olan grubun olmayan gruba göre dayanıklılık ve mental iyi oluş düzeylerinin yüksek, kaygı ve tükenmişlik düzeylerinin ise düşük olacağıdır. İkinci hipotez, sporcu grup için psikolojik sağlamlığın COVID-19 kaygısı ve tükenmişlik ile negatif, mental iyi oluş ile pozitif ilişkili olacağıdır. Üçüncü hipotez ise sporcu olmayan grup için psikolojik sağlamlığın COVID-19 kaygısı ve tükenmişlik ile negatif, mental iyi oluş ile pozitif ilişkili olacağıdır. Doğrulanırsa, bu çalışmadan elde edilen bulgular teorik bir temel sağlar ve COVID-19 sırasında psikolojik müdahaleler için olası uygulanabilir stratejiler önerebilir.

Yöntem: Araştırma kesitsel bir çalışma olarak tasarlanmıştır. Kesitsel çalışmalar, belirli bir zamanda ilgili bilgilerin (verilerin) toplanmasıyla karakterize edilir (Kesmodel, 2018). Bu amaçla COVID-19 kaygısı, tükenmişlik, mental iyi oluş ve psikolojik sağlamlık arasındaki ilişkileri belirlemek için yapısal eşitlik modeli kullanılmıştır. Yapısal eşitlik modellemesi (SEM), ölçülen değişkenler ve örtük değişkenler arasındaki "nedensel" ilişkiler hakkında hipotezleri test etmede kullanılan ve bağımlılık ilişkilerini tahmin etmek için, varyans, kovaryans analizleri, faktör analizi ve çoklu regresyon gibi analizlerin birleşmesiyle meydana gelen çok değişkenli bir istatistiksel yaklaşımdır (Sümer, 2000; Dursun ve Kocagöz, 2010).

Veri Toplama Araçları olarak, COVID-19 ile ilişkili Kaygı Ölçeği: Graupensperger Vd. (2020) ve Hensel Vd. (2021) tarafından çalışmalarında kullanılan COVID-19 ile ilişkili kaygı ölçeği 4 madde ve tek faktörlüdür. Kısa Psikolojik Sağlamlık Ölçeği (KPSÖ): Smith Vd., (2008) tarafından geliştirilen kısa psikolojik sağlamlık ölçeği Doğan (2015) tarafından Türk kültürüne uyarlanmıştır. 6 maddelik, öz bildirim tarzı bir ölçme aracıdır. Warwick-Edınburgh Mental İyi Oluş Ölçeği Kısa Formu: Tennant Vd. (2007) tarafından geliştirilmiştir. Demirtaş ve Baytemir (2019) tarafından ise ölçeğin kısa formu için geçerlilik ve güvenilirlik çalışması yapılmıştır. Üniversite öğrencileri üzerinde psikometrik özelliklerinin incelenmesi amacı taşıyan bu ölçek, 7 maddeden oluşmaktadır. Maslach Tükenmişlik Ölçeği Öğrenci Formu: Schaufeli Vd. (2002) tarafından geliştirilen ve öğrenciler üzerinde kullanılmak üzere uyarlanmış hali olan MTE-ÖF'nin ülkemiz üniversite öğrencileri üzerinde geçerlik ve güvenirlik çalışması Çapri Vd. (2011) tarafından yapılmıştır. Ölçek 13 madde ve 3 faktörden oluşmaktadır. Araştırmaya başlamadan önce ilgili üniversitenin Spor Bilimleri Fakültesi Etik Kurulu'ndan araştırmanın yapılabilmesi için etik kurul onayı alınmıştır. Yasal prosedürlere bağlı kalınarak, Türkiye'nin doğu bölgesinde yer alan bir kamu üniversitesinde eğitim gören öğrencilere yüz yüze olarak fiziki anket uygulanmıştır. Veri toplama süreci 20 gün içerisinde tamamlanmıştır. Fiziki olarak hazırlanan anketlerden 12'inde eksik veri tespit edilerek çıkarılmış ve elde edilen veriler analiz edilmiştir. Uç değer, normallik ve homojenlik testleri uygulanmıştır. Son aşamada AMOS yazılımı kullanılarak normallik değerleri incelenmiş ve veri setinin herhangi bir dönüştürme işlemi uygulanmadan normal ve homojen bir dağılım gösterdiği tespit edilmiştir. Parametrik koşullar sağlandıktan sonra, araştırmadaki ölçeklere ait ilişkiler için doğrulayıcı ölçüm ve yapısal eşitlik modelleri ayrı ayrı oluşturulmuş ve test edilmiştir. Sporcu ve sporcu olmayan öğrencilerin COVİD-19 ile ilişkili kaygı ve tükenmişlik düzeyleri ile mental iyi oluş ve psikolojik sağlamlık düzeyleri arasındaki ilişkiler Pearson momentler çarpım korelasyon katsayısı ile ve psikolojik sağlamlığın mental iyi oluş, COVID-19 ilişkili kaygı ve tükenmişlik üzerindeki etkisi yapısal eşitlik modeli kullanılarak belirlenmiştir. Araştırma sürecinde bütün analizler, SPSS 22.00 ve AMOS paket programları aracılığıyla yapılmıştır.

Bulgular: Araştırmada öncelikle psikolojik sağlamlık, COVID 19 kaygısı, mental iyi oluş ve tükenmişlik değişkenlerine ait tanımlayıcı istatistikler ve korelasyon sonuçları verilmiştir. Katılımcılardan elde edilen ve homojen dağılım gösteren puanların ortalamaları ile katılımcıların sporcu olup olmama durumu

arasındaki farkın anlamlılığını saptamak amacıyla bağımsız örneklemler için t testi kullanılmıştır. Bu değişkenler arasındaki doğrudan ve dolaylı etkiler ise yapısal eşitlik modeli ile test edilmiştir. Ortalama, standart sapma, çarpıklık ve basıklık değerleri ile Cronbach Alfa katsayıları ve korelasyon değerleri Tablo 1'de verilmiştir. Çarpıklık ve basıklık değerlerinin normal aralıklarda olduğu (-1.96 <x < 1.96) ve tüm Cronbach Alfa katsayılarının yeterli olduğu görülmüştür.

Parametrik testlerin kullanılmasında verilerin homojen dağılım göstermesi varsayımının test edilmesi için araştırmada Levene testi uygulanmıştır. Levene homojenlik testi sonucunda psikolojik sağlamlık (F= .138, p>.05), COVID-19 kaygısı (F= 2.463, p>.05), mental iyi oluş (F= 5.049, p>.05) ve tükenmişlik (F= .203, p>.05) puanlarının homojen bir dağılım gösterdiği sonucuna ulaşılmıştır. Katılımcılardan elde edilen puanların homojen bir dağılım gösterdiği tespit edildikten sonra Bağımsız örneklemler için t testi uygulanmış ve elde edilen sonuçlar aşağıdaki tablo 2' te sunulmuştur. Tablo 2 incelendiğinde katılımcıların psikolojik sağlamlık [t(676) = 2,551, p<.05], COVID 19 kaygısı [t(676) = -3,883, p<.05], mental iyi oluş [t(676) = 3,939, p<.05] ve tükenmişlik [t(676) = -3,251, p<.05] puan ortalamaları ile sporcu olan ve olmayanlar arasında anlamlı düzeyde farklılaşma olduğu görülmektedir. Araştırmada değişkenler arasındaki ilişki belirlendikten sonra oluşturulan hipotezlerin test edilmesinde AMOS 21 programı kullanılarak yapısal eşitlik modellemesi kullanılmıştır. Analizler sonucunda sporcu olan ve olmayanlar grubu ayrı ayrı değerlendirilmiştir. Test edilen modele ilişkin uyum indeks değerleri; ($\chi 2$ =(1380,361/492)= 2,806; RMSEA= .03; AGFI= .88; GFI= .90; CFI= .89) göz önünde bulundurulduğunda kurulan modelde değişkenler arasında anlamlı bir ilişkinin olduğu söylenebilmektedir (p< 0.001) (Karagöz, 2019).

Spor yapan öğrencilerde COVID-19 kaygısının (β = -.29, p <.01) ve tükenmişliğin (β = -.29, p <.01) psikolojik sağlamlık üzerinde negatif yönde anlamlı ilişkili olduğu psikolojik sağlamlığın ise mental iyi oluş üzerinde pozitif yönlü anlamlı ilişkili olduğu (β = .38, p <.01) görülmektedir. Bu anlamda spor yapan öğrencilerin COVID-19 kaygısı ve tükenmişliklerinin azaldıkça psikolojik sağlamlıklarının da artacağı böylece de mental iyi oluşlarının artacağı söylenebilmektedir.

Araştırmanın amaçlarına göre kurulan hipotezler doğrultusunda spor yapmayan öğrencilerin COVID-19 kaygısı, tükenmişlik, mental iyi oluş ve psikolojik sağlamlıkları arasındaki ilişkilerin incelenmesinde ortaya çıkan sonuç şöyledir: Spor yapmayan öğrencilerde COVID-19 kaygısının (β = -.25, p <.01) ve tükenmişliğin (β = -.36, p <.01) psikolojik sağlamlık üzerinde negatif yönde anlamlı ilişkili olduğu psikolojik sağlamlığın ise mental iyi oluş üzerinde pozitif yönlü anlamlı ilişkili olduğu (β = .55, p <.01) görülmektedir. Bu anlamda spor yapmayan öğrencilerin COVID-19 kaygısı ve tükenmişliklerinin azaldıkça psikolojik sağlamlıklarının da artacağı böylece de mental iyi oluşlarının artacağı söylenebilmektedir.

Öneriler: Çalışmamızın sonuçlarına göre psikolojik sağlamlık, öğrencilerin psikolojik iyi oluşları üzerinde olumlu etkisi olan önemli bir kaynaktır. Bu konuda Pitt Vd., (2014) tarafından yapılan araştırma, üniversite çalışmaları ile ilgili önemli bir kişisel kapasite olduğu sonucuna varmıştır. Dayanıklılık ve mental iyi oluş arasındaki etkileşim anlamlı ve pozitif bir şekilde ilişkilidir (Gibbons Vd., 2011; He Vd., 2018; Rios-Risquez Vd., 2018). Başka bir deyişle, daha fazla dayanıklılık, öğrenci için daha fazla psikolojik iyilik halini gösterir. Bulgularımız, psikolojik sağlamlığın mental iyi oluş ile ilişkisini literatürde iyi bir şekilde temsil eden anahtar bir faktör olduğu görüşünü desteklemektedir (Fribog Vd., 2005; He Vd., 2013; Wingo Vd., 2014). Sonuç olarak, COVID-19 salgını nedeniyle çoğu üniversite öğrencisi günlük yaşamlarında çeşitli değişikliklere maruz kaldı. Eğitimleri boyunca da pek çok zorluğa katlanmak zorunda oldukları göz önüne alındığından üniversite öğrencilerinin psikolojik uyum düzeylerini desteklemenin yollarını bulmak önemlidir. Bu noktada öğrencilerin psikolojik sağlamlıklarını ve mental iyi oluş düzeylerini korumaya yönelik alınacak tedbirler, onların karşılaşabilecekleri olası olumsuz durumlarda gelişecek stres belirti düzeylerini hafifletebilir, performanslarını ve başarı düzeylerini korumalarına yardımcı olabilir.

Bu çalışmanın sonuçları gerek öğrenci-sporcu gerekse sporcu olmayan öğrencilerde psikolojik sağlamlık ve mental iyi oluş düzeylerini geliştirmenin, yaşamları boyunca karşılaşabilecekleri olumsuz koşullara karşı azaltıcı/koruyucu bir etken olduğunu göstermektedir. COVID-19 pandemisinin olumsuz yansımalarının devam ettiği ve günümüzde sosyal ve akademik ortamda kaynaklanabilecek stresli durumlar ile her an karşılaşılabileceğinin anlaşılmasının, yapılacak çalışmalara yardımcı olabileceği ayrıca elde edilen bulguların bu alandaki uzmanlar için önemli bir veri kaynağı olabileceği düşünülmektedir.

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