



Ermis, A., Ermis, E., & Imamoğlu, O., (2022). Psychological Well-Being And Its Effect On Perceived Stress In University Students During The Coronavirus Process, The Online Journal of Recreation and Sports (TOJRAS), 11 (4),10-21.

DOI: <https://doi.org/10.22282/ojrs.2022.105>

**Makale Türü (ArticleType):**  
Araştırma Makalesi / Research Article

ISSN: 2146-9598 Doi Prefix:10.22282

## PSYCHOLOGICAL WELL-BEING AND ITS EFFECT ON PERCEIVED STRESS IN UNIVERSITY STUDENTS DURING THE CORONAVIRUS PROCESS

**Aydan ERMİŞ**

Ondokuz Mayıs University, School of Foreign Languages, Samsun, TURKEY,

[aydanak@omu.edu.tr](mailto:aydanak@omu.edu.tr)

ORCID: 0000-0003-2285-7980

**Egemen ERMİŞ**

Ondokuz Mayıs University, Yaşar Doğu Sports Sciences Faculty, Samsun, TURKEY,

[egemen.ermis@omu.edu.tr](mailto:egemen.ermis@omu.edu.tr)

ORCID: 0000-0002-3976-6981

**Osman İMAMOĞLU**

Ondokuz Mayıs University, Yaşar Doğu Sports Sciences Faculty, Samsun, TURKEY,

[osmani55@hotmail.com](mailto:osmani55@hotmail.com)

ORCID: 0000-0001-6671-6042

### Abstract

The aim of this study is to find out psychological well-being and perceived stress states of university students during the coronavirus process and to research the effects of psychological well-being on perceived stress. "Psychological well-being" and "perceived stress" scales filled in by 659 university students were evaluated. Independent t test, one way ANOVA and LSD tests were used in statistical analysis. Psychological well-being states of the participants were found to be statistically different in terms of gender ( $p < 0.05$ ). Female students were found to have lower well-being scores. Conversely, no significant difference was found in perceived stress scores in terms of gender ( $p > 0.05$ ). Statistically significant difference was found between well-being scores in terms of perceived immunity ( $p < 0.05$ ). Psychological well-being scores were found to increase as the state of believing in the strength of immunity increased. The lowest well-being scores were found in the participants who perceived their immunity weak. Perceived stress scores were also found to differ significantly in terms of perceived immunity ( $p < 0.05$ ). Perceived stress scores of the participants who perceived their immunity strong were found to be significantly lower than those of the participants who perceived their immunity weak. In addition, well-being and perceived stress scores of students were found to differ significantly in terms of sleep pattern during the pandemic ( $p < 0.05$ ). The students who stated that there were no changes in sleep pattern were found to have the highest psychological well-being scores. Psychological well-being scores of students who slept between 7 and 9 hours were found to be significantly higher and their perceived stress scores were found to be significantly lower than the students who slept 6 hours or less and those who slept 10 hours or more ( $p < 0.05$ ). It can be said that good sleep patterns and sleeping between 7 and 9 hours increased students' psychological well-being and decreased their perceived stress. It was found that while psychological well-being of university students differed in terms of gender, perceived immunity and sleep pattern, their perceived stress did not differ in terms of gender. It was found

that students' perceived stress differed in terms of perceived immunity and sleep duration of students. It was found that psychological well-being explained 0.9% ( $R^2 = 0,009$ ) of the variation on perceived stress. It is recommended to reduce the perceived stress of university students by increasing their psychological well-being. It is also recommended to increase students' level of believing in their immunity and to ensure that they sleep regularly and sufficiently.

**Key Words:** University student, Psychological well-being, Perceived stress, Immunity, Sleep

## INTRODUCTION

Coronavirus has greatly influenced individuals' lives, especially those of university students who have experienced drastic changes resulting in high levels of stress and decreased wellbeing. Previous studies on increases in anxiety and depression have proven the pandemic's mental health impact (Lei et al., 2020), including students (Asmundson & Taylor, 2020). Most of the time, being a university student can be stressful and can have negative effects on well-being. Low levels of psychological well-being may increase the stress levels of students, especially during difficult times such as a pandemic.

The concept of well-being is associated with a large number of positive life outcomes such as both physical and mental health and also success, high job performance and happiness (Ayyash-Abdo and Alamuddin, 2007; Deci and Ryan, 2008; Ryan and Deci, 2001; Weiss et al., 2008). Psychological well-being is defined as the individual's effort or self-actualization and includes six sub-dimensions. These are positive relations with others, environmental mastery, self-acceptance, autonomy, personal growth and purpose in life (Kjell et al., 2013; Kokko et al., 2013; Ryan and Deci, 2001). It is claimed that there are eight important areas to determine the personal well-being of the individual. These are a) life standard, b) personal health, c) success in life, d) personal relations, e) personal safety, f) social bond/belonging, g) being positive about the future and h) spirituality/religion (Meral, 2014; Bekiroğlu and Tatar, 2019). Well-being, which is also considered as an indicator of the quality of life of individuals, is an extremely important concept in terms of its contributions to mental, emotional, cognitive and physical health and its relations with structures that put emotional processes related with the prevention of pathologies such as depression, alexithymia, burnout and stress in the centre (Lin et al., 2016; Meral, 2014; Paez et al., 2013; Shaheen and Shaheen, 2016).

The main determinant of positive psychology, which develops a perspective for individuals to consider the negative situations and difficulties they encounter in their lives from a positive aspect, is "well-being" (Çankı and Yener, 2017). Well-being is defined as an individual's not feeling anxiety, uneasiness, depression and other psychological disorders in his/her life (Ryff, 1995). Psychological well-being means being on good terms with others and leading a purposeful and meaningful life (Salehinejad et al., 2020). It also means that positive emotions are more dominant than negative emotions and it is based on subjective data. High psychological well-being affects human life positively in all aspects. The core dimensions of psychological well-being are self-acceptance, positive relationships with others, autonomy, environmental expertise, purpose in life and personal development (Erkoç et al., 2021). Psychological well-being enables individuals to have a positive self-perception, to accept self as it is being aware of limitations, to build healthy and trust-based relationships with other people,

and to create the most suitable living space free and independent in their actions. It can be defined as life's being meaningful and purposeful, individuals' being aware of their potential and making efforts to develop their existing potential (Keyes et al., 2002). Psychological well-being helps individuals to communicate effectively, to achieve success, to develop financially, to maintain health and to create different positions that will positively affect their personal development and to make their lives easy and happy (Akdağ and Çankaya, 2015).

Stress is defined as emotional, physical and cognitive reactions that threaten or disrupt the social, emotional and cognitive functions in daily life and force individuals to show a specific effort to protect their functionality (Çevik and Şentürk, 2008; Eskin et al., 2013). Stress can be defined as a situation that occurs when physical and mental integrity is forced; it can also be defined as factors that disrupt or force personal integrity (Tekin et al., 2019). Stress has an important role in the onset and course of psychological diseases. Stress affects normal functions of individuals negatively and long-term exposure to stress leads to emergence of different health problems and even negatively affects the functioning of individuals and the quality of life (Eskin et al., 2013). Stress has negative effects on human health (Schneiderman et al., 2005) and it is strongly correlated with mental health (Çevik and Şentürk 2008). It is a negative emotional experience that accompanies predictable biochemical, physical, mental and behavioural changes directed towards changing the stressful situation or adapting to its effects. Stress also has a causal role in the formation of deathly behaviors such as exposure to life events and suicide. Being exposed to stressful events and the perception of stress also increases the risk of substance abuse such as tobacco, alcohol and drug (Pilowsky et al., 2008; Simmons et al., 2009; Siqueira et al., 2000). Stress affects not only physical and mental health, but also daily behaviors of individuals (Eskin et al., 2013). It affects individuals' learning and memory. Exposure to stressful events negatively affects retention and recall of learned information (Shors, 2006). The intensity of stress individuals perceive and how they can cope with stress is strongly associated with physical and mental health (Ataman and Dağ, 2014; Maner and Aydın, 2007). Stress in general, and chronic stress in particular, is considered to be effective in the development and acceleration of depression (Lee et al., 2002). Although the harmful effects of stress are well-known, stress levels are high in general population (Klaperski et al., 2014). Stress can negatively affect health and fitness and lead to harmful physical and emotional symptoms such as headache, anxiety and depression (Lemay et al., 2019).

Coronavirus pandemic has caused sharp shocks in world economies and societies and has had negative effects on individuals (MacIntyre, 2020; Shigemura et al., 2020). According to the results of a study conducted during the COVID-19 pandemic, 7% of individuals were found to have stress symptoms (Liu et al., 2020). Literature reviewed has shown COVID-19 to have negative effects on individuals' mental health. Stressors include perceived security, threat and risk of contamination, ignorance of the unknown, quarantine and detention, stigmatization (a sign of shame associated with a particular situation, quality or person), social exclusion, financial loss and job insecurity (Hamouche, 2020; MacIntyre, 2020; Shigemura et al., 2020). Since COVID-19 affects normal lives of many people negatively and includes many uncertainties, it causes anxiety and negatively affects psychological well-being (Çiçek and Almalı, 2020). Global pandemic period has been considered as one of the factors affecting the state of psychological well-being (Salehinejad et al., 2020; Sonderskov et al., 2020). It is thought that the level of positive thinking will be high in parallel with the high psychological well-being. In their study, Keleş et al. (2022)

found that during the COVID-19 process, university students had higher than moderate level of perceived stress and lower than moderate level of perceived coping. Due to the problems university students have in their daily lives, they experience common mental disorders such as stress and depression and this has become a global anxiety for university students (Keleş et al.,2022; Othman et al., 2019). For this reason and similar reasons, university students' psychological well-being and perceived stress states and the effects of psychological well-being on perceived stress in university students have become a topic of interest.

The aim of this study is to find out the psychological well-being and perceived stress states of university students during the coronavirus process and to research the effects of psychological well-being on perceived stress.

## MATERIAL AND METHOD

### Participants:

The participants consisted of university students. Psychological Well-being and Perceived Stress Scales filled in by a total of 659 university students were evaluated. The surveys were filled in 2021 on a voluntary basis.

### Psychological Well-being Scale:

The scale was developed by Diener et al. as a complementary scale for socio-psychological aspect of subjective well-being concept (Diener et al., 2009). It was adapted into Turkish by Telef (2013). The scale is an 8-item and 7 Likert type scale evaluating important components of human functioning such as positive relationships, feelings of competence and having a significant and purposeful life. Evaluation is made by scoring as 1: totally disagree – 7: totally agree. Minimum possible score from the scale, which shows the abundance of psychological resources and the power individuals have, is 8 while the maximum possible score is 56 (Telef, 2013). Cronbach alpha reliability of the scale was calculated as 0,88 in the present study.

### Perceived Stress Scale:

It is a measurement tool developed by Cohen et al. (1983) to measure how frequently stress symptoms occur. 14-item Perceived Stress Scale was designed to measure how stressful some situations in an individual's life are perceived. The scale was adapted into Turkish by Eskin et al. (2013). Participants evaluate each item on a 5-Likert type ranging between "Never (0)" and "Very often (4)". Participants are asked to choose one of the options by considering the past month. There is no time limit for answering the scale. While 7 items in the scale are normally scored, 7 items are reversely scored. Reversely scored items are items 4, 5, 6, 7, 9, 10 and 13. Minimum possible score from the scale is 0, while the maximum total score is 56. Higher total score shows high perceived stress, while low total score shows low perceived stress. The scale was adapted into Turkish by Eskin et al. (2013). Cronbach Alpha internal consistently coefficient for the 14-item Turkish form of the scale is 0,84. Cronbach Alpha internal consistently coefficient was found as 0,83 for the study group of the present study.

### Statistical evaluation

SPSS 25,00 statistical package program was used for statistical analysis. Kolmogorov-Smirnov test was conducted to test whether the data were normally distributed and it was found that the data were normally distributed ( $p>0.05$ ). Independent t-test, one way ANOVA and LSD tests were used for statistical analysis. LSD test is

acceptable for up-to 3 treatment groups as it cannot handle type I error rate if group number increases. In all statistical comparisons, significance level was taken as 0.05.

**FINDINGS**

Anthropometric characteristics of the students and the comparisons of perceived stress and psychological well-being states in terms of gender, how students perceive their immunity, sleep pattern and sleep duration are shown in tables below.

**Table 1:** Comparison of age, height and weight by gender

	Gender	N	Mean	St. deviation	t-test	p
Age (Years)	Female	325	21.07	2.93	-0.85	0.395
	Male	334	21.23	2.82		
Height (cm)	Female	325	165.30	5.02	-29.05	0.000**
	Male	334	178.17	6.17		
Weight (kg)	Female	325	60.04	7.50	-21.16	0.000**
	Male	334	78.45	13.61		

\*\*p<0.05

**Table 2:** Comparison of coronavirus-related perceived stress and psychological well-being scores by gender

	Gender	N	Mean	St. deviation	t-test	p
Psychological well-being	Female	325	25.14	11.54	-2.63	0.009*
	Male	334	27.48	11.16		
Perceived stress	Female	325	27.90	8.47	-0.46	0.642
	Male	334	28.20	8.24		

\*\*p<0.05

**Table 3:** Comparison of perceived stress and psychological well-being scores in terms of how immunity is perceived

		n	Mean	St. deviation	F/LSD	P
Psychological well-being	Strong (1)	241	29.13	13,32	15.68	0.000**
	Partly strong (2)	253	25.96	10,96		
	Weak (3)	165	22.83	7.20		
	Total	659	26.34	11.39		
Perceived stress	Strong (1)	241	27.24	8.69	3.66	0.026*
	Partly strong (2)	253	27.88	8.11		
	Weak (3)	165	29.51	8.05		
	Total	659	28.05	8.35		

\*p<0.05

**Table 4.** Comparison of perceived stress and psychological well-being scores in terms of the state of sleep pattern

	Sleep pattern	n	Mean	St.	F/LSD	P
Psychological well-being	No changes in sleep (1)	207	34.13	12.26	98.27	0.000**
	I sleep more (2)	237	20.92	6.96		
	I sleep less (3)	215	24.97	10.45	1>2,3	
	Total	659	26.34	11.39	2<3	
Perceived stress	No changes in sleep (1)	207	25.55	7.46	14.05	0.000**
	I sleep more (2)	237	28.88	9.00		
	I sleep less (3)	215	29.52	7.87	1<2,3	
	Total	659	28.05	8.35		

\*\*p<0.05

**Table 5.** Comparison of perceived stress and psychological well-being scores in terms of sleep duration

	Sleep duration	n	Mean	St.	F/LSD	P
Psychological well-being	≤6 hours (1)	212	24.97	10.36	115.81	0.000**
	7-9 hours (2)	218	34.39	12.02		
	≥10 hours (3)	229	20.31	6.41	2>1,3	
	Total	659	26.34	11.39	3<1	
Perceived stress	≤6 hours (1)	212	29.41	7.89	9.57	0.000**
	7-9 hours (2)	218	26.05	7.40		
	≥10 hours (3)	229	28.62	9.22	2<1,3	
	Total	659	28.05	8.35		

\*\*p<0.05

**Table 6.** The effects of psychological well-being on perceived stress

Variables	B	Std. Error	R <sup>2</sup>	t	P-value
Constant	29.897	,823	0.009	36.331	,000
Psychological	-,070	,029		-2.442	,015

Dependent variable: Perceived stress

## DISCUSSION AND CONCLUSION

In this study, mean ages of the participants were found as 21,07 years in female students and as 21,23 years in male students. While ages of the participants were found to be similar ( $p>0.05$ ), their height and weight were found to differ in terms of gender ( $p<0.05$ ).

In their study, Cao et al. (2020) stated that the psychological effects of Covid-19 pandemic did not differ in terms of gender. In a previously conducted study, Inglehart (2002) stated that the level of well-being differed in terms of gender. On the other hand, Bekiroğlu and Tatar (2016) did not find such a result in their study. In a study conducted on students of physical education and sports department, Güvenç (2021) did not find a difference in psychological well-being levels of male and female students. Kermen et al. (2016) found that there were no differences in high school students in terms of gender. In a study conducted on individuals aged 18 and older by Ayhan (2019) and on individuals aged between 20 and 50 by Kocaman (2019), it was found that participants' psychological well-being levels did not differ significantly in terms of the variable of gender. In their study, Güney et al. (2021a) found that psychological well-being differed in terms of gender. In a study conducted on university

students, Alabucak (2019) found a significant difference in psychological well-being scores of participants in terms of gender and concluded that female participants had higher psychological well-being scores than male participants. In their study, Şener and İmamoğlu (2020) found that psychological well-being states differed before and during pandemic in terms of gender and women had higher well-being scores than men. Sekban and İmamoğlu (2021) found that well-being scores differed in terms of gender during the coronavirus process. In the present study, psychological well-being states were found to be statistically different in terms of gender ( $p < 0.05$ ). Women were found to have lower well-being scores than men.

There are a large number of studies reporting that perceived stress differs in terms of gender (Demir, 2019; Eraslan, 2016; Güney et al., 2021b; Keleş et al., 2022; Özgan et al., 2008; Savcı and Aysan, 2014). On the other hand, there are also studies reporting that perceived stress does not differ in terms of gender (Bilgel et al., 2007; Hevedanlı and Çakmak, 2005; Şanlı, 2017; Uzun et al., 2021). It has been argued that majority of studies show that stress differs in terms of gender and male students have lower anxiety and stress levels than female students (Demir, 2019). Tutkun and İmamoğlu (2017) found that perceived stress score was higher in male students when compared with female students. In their study, Özgan et al. (2018) concluded that female students were more stressful than male students. It can be thought that female students experience more stress than male students due to anger, internal and external pressure. In addition, it was found that female students may look more stressful than male students even when they experience lower stress (Özgan et al., 2018). In the present study, no statistically significant difference was found in perceived stress scores in terms of gender ( $p > 0.05$ ).

Şener and İmamoğlu (2020) found the difference in psychological well-being scores insignificant in terms of the state of perceived immunity. Güney et al. (2021a) found that the difference in psychological well-being scores was not significant in terms of the state of perceived immunity. In the present study, statistically significant difference was found between psychological well-being scores in terms of perceived immunity ( $p < 0.05$ ). Psychological well-being scores were found to increase as the state of believing in the strength of immunity increased. The lowest well-being scores were found in the participants who perceived their immunity weak. Perceived stress scores were also found to differ significantly in terms of perceived immunity ( $p < 0.05$ ). Perceived stress scores of the participants who perceived their immunity strong were found to be significantly lower than those of the participants who perceived their immunity weak.

Ergül-Topçu et al. (2021) found that the pandemic process had significant effects on the psychological well-being of young adults. In their study, Sarı and Çakır (2016) found a negative and low significant association between fear of happiness and psychological well-being. Şener and İmamoğlu (2020) found that students' well-being scores differed significantly in terms of sleep pattern. Sekban and İmamoğlu (2021), Uzun et al., (2021) and Güney et al. (2021b) found statistically significant difference between the stress/discomfort perception and perceived stress scores of the participants who stated "there were no changes in sleep pattern". In the present study, well-being scores of students were found to differ significantly in terms of sleep pattern during the pandemic ( $p < 0.05$ ). Students who stated that there were no changes in sleep patterns were found to have the highest psychological well-being scores. Perceived stress scores of students were found to differ statistically

significantly in terms of sleep pattern ( $p < 0.05$ ). The participants who stated that there were no changes in sleep pattern were found to have lower stress scores. In the present study, psychological well-being scores of students who slept between 7 and 9 hours were found to be significantly higher and their perceived stress scores were found to be significantly lower than students who slept 6 hours or less and those who slept 10 hours or more ( $p < 0.05$ ). It can be said that good sleep patterns and sleeping between 7 and 9 hours increased students' psychological well-being and decreased their stress. Poor quality of sleep has a negative effect on individuals' physical structure, working performance, quality of life and mental state (Örsal et al., 2019). Long-term sleep deprivation can lead to severe thought retardation, memory loss, slow reaction, fatigue, irritability and even potential depression and thoughts of suicide (Mieda and Sakurai, 2013; Rosado et al., 2015).

Regression analysis gave a significant regression model between psychological well-being and perceived stress ( $F(1, 647) = 5,965, p = 0.015$ ). Psychological well-being explains 0.9% of the variation on perceived stress ( $R^2 = 0,009$ ). According to the resulting regression model, one unit of increase in psychological well-being will cause a 0,740 unit decrease in perceived stress. In the study, estimated regression equation can be expressed as perceived stress =  $43,062 - 0,740 * \text{psychological well-being}$ . It can be said that individuals with high psychological well-being will have low perceived stress.

Conclusion: It was found that while psychological well-being of university students differed in terms of gender, perceived immunity and sleep pattern, their perceived stress did not differ in terms of gender. It was found that students' perceived stress differed in terms of perceived immunity and the hour students slept. It was found that psychological well-being explained 0.9% ( $R^2 = 0,009$ ) of the variation on perceived stress. It is recommended to reduce the perceived stress of university students by increasing their psychological well-being. It is also recommended to increase students' level of believing in their immunity and to ensure that they sleep regularly and sufficiently.

## REFERENCES:

- Akdağ, F.G. and Çankaya, Z.C. (2015). Evli Bireylerde Psikolojik İyi Oluşun Yordanması, *Mersin Üniversitesi Eğitim Fakültesi Dergisi*, 11(3), 646-662.
- Alabucak, E. (2019). *Beliren Yetişkinlerin Psikolojik İyi Oluşlarını Açıklamada Yalnızlık, Sosyal Destek, Kardeş İlişkileri ve Bazı Demografik Değişkenlerin Rolü*, İstanbul Üniversitesi-Cerrahpaşa Lisansüstü Eğitim Enstitüsü Eğitim Bilimleri Ana Bilim Dalı Yayınlanmamış Yüksek Lisans Tezi. İstanbul, Türkiye.
- Asmundson, G. J. G. and Taylor, S. (2020). How health anxiety influences responses to viral outbreaks like COVID-19: What all decision-makers, health authorities, and health care professionals need to know. *Journal of Anxiety Disorders*, 71 (January), 102211.
- Ataman, T. E. and Dağ, İ. (2014). Stres veren yaşam olayları, bilişsel duygu düzenleme stratejileri, depresif belirtiler ve kaygı düzeyi arasındaki ilişkiler. *Klinik Psikiyatri*, 17, 7-17.
- Ayhan, H. (2019). *Dini Tutumun Adalet Duyarlılık, Ahlaki Yüreklilik ve Psikolojik İyi Oluş Üzerine Etkisi*. Kastamonu Üniversitesi Sosyal Bilimler Enstitüsü Felsefe ve Din Bilimleri Ana Bilim Dalı Yayınlanmamış Yüksek Lisans Tezi.
- Ayyash-Abdo, H. and Alamuddin, R. (2007). Predictors of subjective well-being among college youth in Lebanon. *The Journal of Social Psychology*, 147(3), 265-284.

- Bekiroğlu, B. and Tatar, O. (2019). Genç Yetişkinlerde Kişisel İyi Oluşun Duygu Odaklı Yapılarla İncelenmesi. *Social Sciences Research Journal*, 8 (3), 204-218.
- Bilgel, N., Kabataş, B., Atalar, G. and Gündüz, Y. (2007). Uludağ Üniversitesi İktisadi Ve İdari Bilimler Fakültesi Öğrencilerinin Duygu Durum Araştırması. 8. *Türkiye Ekonometri ve İstatistik Kongresi'nde sunulan bildiri*. İnönü Üniversitesi, *Malatya*.
- Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J. and Zheng, J. (2020). The Psychological Impact of the COVID-19 Epidemic on College Students in China. *Psychiatry Research* 287(112934), 1-5.
- Cohen S, Kamarck T. and Mermelstein S. (1983). A global measure of perceived stress. *J Health Soc Behav*, 24:385-96.
- Cohen S. and Williamson G. (1988). Perceived stress in a probability sample of the United States. In: *The Social Psychology of Health*. Editors. Spacapan S, Oskamp S, Newbury, CA: Sage. p. 31-67.
- Çakır İ. (2006). Polislerin iş stresi ve bazı değişkenlere göre stresle başa çıkma tarzlarının karşılaştırılması. Çukurova Üniversitesi Sosyal Bilimler Ens. Eğitim Bilimleri Anabilim Dalı, Adana, Yüksek Lisans Tezi, 71-75.
- Çankı B. and Yener S. (2017). İş'te Pozitif Davranış, Çizgi Kitabevi Yayınları: 809, ISBN: 978-605-196-097-5
- Çevik A. and Şentürk V (2008) Tarihsel süreçte psikosomatik tıp ve psikosomatik bozukluklara genel bir bakış. *Türkiye Klinikleri Psikiyatri Dergisi*; 1: 1-11
- Çiçek, B. and Almalı, V. (2020). *The Relationship between Anxiety Self-efficacy and Psychological Well-Being during COVID-19 Pandemic Process: Comparison of Private and Public Sector Employees, Turkish Studies*, 15(4), 241-260. <https://dx.doi.org/10.7827/TurkishStudies.43492>
- Deci, E. L. and Ryan, R. M. (2008). Hedonia, eudaimonia, and well-being: an introduction. *Journal of Happiness Studies*, 9(1), 1-11.
- Demir M. (2019). Lise Öğrencilerinin Problem Çözme Becerileri, Algılanan Stres ve Yaşam Doyumu Düzeyleri Arasındaki İlişkinin İncelenmesi, İstanbul Sabahattin Zaim Üniversitesi Sosyal Bilimler Enstitüsü Eğitim Bilimleri Anabilim Dalı Rehberlik ve Psikolojik Danışmanlık Bilim Dalı Yüksek Lisans tezi, İstanbul.
- Diener, E., Scollon, C. N. and Lucas, R. E. (2009). The evolving concept of subjective well-being: The multifaceted nature of happiness. *Social Indicators Research*, 39.
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95(3), 542-575.
- Eraslan, M. (2016). Yaş ve cinsiyet değişkenlerine göre kick boks sporcularının algılanan stres düzeylerinin incelenmesi. *Journal of Human Sciences*, 13(3), 5069-5077. doi:10.14687/jhs.v13i3.4113
- Ergül-Topçu, A., Yasak Y., Kalafat T. and Altınoğlu-Dikmeer İ. (2021). The Relationship between Psychological Well-being of University Students and Demographic, Social, Academic and Disease Related Factors During COVID-19 Pandemic, *Journal of Theory and Practice in Education*, 17(1), 67-83. doi: 10.17244/eku.926595
- Erkoç B, Lotfi S. and Zafer Danış M. (2021). A study to determine the relationship between family fit, chrophobia and psychological well-being. *Arch Health Sci Res*. 8(3):175-181.
- Eskin, M., Harlak, H., Demirkıran, F. and Dereboy, Ç. (2013). Algılanan stres ölçeğinin Türkçeye uyarlanması: güvenilirlik ve geçerlik analizi, *In New/Yeni Symposium Journal*, 51(3), 132-140.
- Güney G, Uzun M. and İmamoğlu O. (2021a). Investigation of The Well-Being of Young People During The Coronavirus Epidemic Process Al Farabi 10th International Conference on Social Sciences Proceeding Book (Editor: Haluk Cömertoğlu) Malatya, Turkey,40-46
- Güney G, Uzun M. and İmamoğlu O.(2021b). Investigation of Perceived Stress Situations In University Students During The Corona Virus Outbreak Process, VI. International European Conference On Social Sciences Proceedings Book, (Editor: Elena Panchenko), - Kyiv, UKRAINE , 476-483
- Güvenç A. (2021). Beden Eğitimi ve Spor Öğretmenlerinin Psikolojik İyi Oluş Düzeyleri İle Olumlu Düşünme Beceri Düzeyleri Arasındaki İlişki, Karamanoğlu Mehmet Bey Üniversitesi Sosyal Bilimler Enstitüsü Beden Eğitimi Ve Spor Ana Bilim Dalı Beden Eğitimi Ve Spor Bilim Dalı Yüksek Lisans Tezi, Karaman.

- Hamouche S. (2020). COVID-19 and employees' mental health: stressors, moderators and agenda for organizational actions [version 1; peer review: awaiting peer review] Emerald Open Research, 2:15 (<https://doi.org/10.35241/emeraldopenres.13550.1>)
- Hevedanlı, Ö. and Çakmak, A. (2014). Eğitim ve Fen-Edebiyat Fakülteleri Biyoloji Bölümü Öğrencilerinin Kaygı Düzeylerinin Çeşitli Değişkenler Açısından İncelenmesi. *Elektronik Sosyal Bilimler Dergisi*, 4(14): 115-127.
- Inglehart, R. (2002). Gender, aging, and subjective well-being. *International Journal of Comparative Sociology*, 43(3-5), 391-408
- Keleş, İ.; Durar, E. and Durmuş, M. (2022). Koronavirüs (Covid-19) Salgın Sürecinde Üniversite Öğrencilerinin Algılanan Stres Düzeylerini Etkileyen Faktörler, *İğdır Üniversitesi Sosyal Bilimler Dergisi*, (29): s. 36-48.
- Kermen, U. Tosun İlçin, N. and Doğan, U. (2016). Yaşam Doyumu ve Psikolojik İyi Oluşun Yordayıcısı Olarak Sosyal Kaygı. *Eğitim Kuram ve Uygulama Araştırmaları Dergisi*, 2(1), 20-29.
- Keyes, C.L.M. Shmotkin, D. and Ryff, C.D. (2002). Optimizing Well-Being: The Empirical encounter of Two traditions. *Journal Of Personality and Social Psychology*, 82(6), 1007-1022.
- Kocaman, E.N. (2019). *Bir Grup Yetişkinde Umut ve Psikolojik İyi Oluş Arasındaki İlişkinin Farklı Değişkenler Açısından İncelenmesi*. İstanbul: Sabahattin Zaim Üniversitesi Sosyal Bilimler Enstitüsü Eğitim Bilimleri Ana Bilim Dalı Yayımlanmamış Yüksek Lisans Tezi.
- Kjell, O. N., Nima, A. A., Sikström, S., Archer, T. and Garcia, D. (2013). Iranian and Swedish adolescents: differences in personality traits and well-being. *PeerJ*, 1, e197.
- Klaperski, S., von Dawans B, Heinrichs M. and Fuchs, R. (2014). Effects of a 12-week endurance training program on the physiological response to psychosocial stress in men: a randomized controlled trial, *Journal of Behavioural Medicine*, 37(6), pp: 1118-33.
- Kokko, K., Tolvanen, A. and Pulkkinen, L. (2013). Associations between personality traits and psychological well-being across time in middle adulthood. *Journal of Research in Personality*, 47(6), 748-756.
- Lee, A.L., Ogle, W.O. and Sapolsky, R.M. (2002). Stress and depression: possible links to neuron death in the hippocampus, *Bipolar Disorders*, 4(2), pp:117-28.
- Lei, L., Huang, X., Zhang, S., Yang, J., Yang, L. and Xu, M. (2020). Comparison of Prevalence and Associated Factors of Anxiety and Depression among People Affected by versus People Unaffected by Quarantine during the COVID-19 Epidemic in Southwestern China. *Medical Science Monitor*, 26, 1-12.
- Lemay, V., Hoolahan, J. and Buchanan, A. (2019). Impact of a yoga and meditation intervention on students' stress and anxiety levels. *American Journal of Pharmaceutical Education*, 83 (5), 7001.
- Lin, D. T., Liebert, C. A., Tran, J., Lau, J. N. and Salles, A. (2016). Emotional intelligence as a predictor of resident well-being. *Journal of the American College of Surgeons*, 223(2), 352-358.
- Liu N, Zhang F, Wei C, Jia Y, Shang Z. and Sun L. (2020). Prevalence and predictors of PTSS during COVID-19 outbreak in China hardest-hit areas: Gender differences matter. *Psychiatry Res*, 287:112921.
- MacIntyre CR. (2020). On a knife's edge of a COVID-19 pandemic: is containment still possible? *Public Health Res Pract*. 30.
- Maner, F. and Aydın, A. (2007). Bulimiya nervozada psikososyokültürel etmenler. *Düşünen Adam*, 20(1), 25-37.
- Meral, B. F. (2014). Kişisel İyi Oluş İndeksi-Yetişkin Türkçe formunun psikometrik özellikleri. *The Journal of Happiness and Well-Being*, 2(2), 119-131.
- Mieda M. and Sakurai T. (2013). Orexin (hypocretin) receptor agonists and antagonists for treatment of sleep disorders. Rationale for development and current status. *CNS Drugs*, 27:83-90.
- Othman, N., Ahmad, F., El Morr, C. and Ritvo, P. (2019). Perceived impact of contextual determinants on depression, anxiety and stress: a survey with university students. *Int J Ment Health Syst*, 5(1), 13-17.
- Örsal Ö., Kök Eren H. and Duru P. (2019). Psikiyatri hastalarının uyku kalitesini etkileyen faktörlerin yapısal eşitlik modeli ile incelenmesi, *J Psychiatric Nurs*, 10(1):55-64

- Özgan, H., Balkar, B. and Eskil, M. (2008). Eğitim Fakültesi Öğrencileri Tarafından Sınıfta Algılanan Stres Nedenleri ve Kişisel Değişkenlerin Strese Olan Etkisi. *Elektronik Sosyal Bilimler Dergisi*, 7(24): 337-350.
- Paez, D., Seguel, A. M. and Martinez-Sanchez, F. (2013). Incremental validity of alexithymia, emotional coping and humor style on happiness and psychological well-being. *Journal of Happiness Studies*, 14(5), 1621-1637.
- Pilowsky DJ, Keyes KM. and Hasin DS .(2008). Adverse childhood events and lifetime alcohol dependence. *American Journal of Public Health*; 99: 258-263
- Rosado IV, Russo GH. and Maia EM.( 2015). Generating health elicits illness? The contradictions of work performed in emergency care units of public hospitals. *Cien Saude Colet*, 20: 3021–32.
- Ryan, R. M. and Deci, E. L. (2001). On happiness and human potentials: a review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52(1), 141-166.
- Ryff, C. D. (1995). Psychological well-being in adult life. *Current Directions in Psychological Science*, 4, 99-104
- Salehinejad, M. A., Majidinezhad, M., E.Ghanavati, Kouestanian, S., Vicario, C. M., Nitsche, M. A. and Nejati, V. (2020). Negative impact of COVID-19 pandemic on sleep quantitative parameters, quality, and circadian alignment: Implications for health and psychological well-being. *EXCLI Journal*, 19, 1297-1308.
- Sanderson, W. C., Arunagiri, V., Funk, A. P., Ginsburg, K. L., Krychiw, J. K., Limowski, A. R. and Stout, Z. (2020). The nature and treatment of pandemic-related psychological distress. *Journal of Contemporary Psychotherapy*, 50, 251-263.
- Sarı T. and Çakır G. (2016). Mutluluk Korkusu İle Öznel Ve Psikolojik İyi Oluş Arasındaki İlişkinin İncelenmesi, *Journal of Research in Education and Teaching*, Cilt:5 Özel Sayı Makale No: 25: 222-229
- Savcı, M. and Aysan, F. (2014). Üniversite Öğrencilerinde Algılanan Stres Düzeyi İle Stresle Başa Çıkma Stratejileri Arasındaki İlişki. *Uluslararası Türk Eğitim Bilimleri Dergisi*, 2014(3), 44-56.
- Schneiderman N, Ironson G. and Siegel SD. (2005). Stress and health: psychological, behavioral, and biological determinants. *Annual Review of Clinical Psychology*; 1:607-628.
- Sekban G. and İmamoğlu O. (2021). Life Satisfaction and Psychological Well-Being of University Educated Students During the Covid-19 Pandemic, *Apuntes Universitarios*, 11(4),384-398, <https://doi.org/10.17162/au.v11i4.819>
- Shaheen, S. and Shaheen, H. (2016). Emotional intelligence in relation to psychological wellbeing among students. *The International Journal of Indian Psychology*, 3(4), 206-213.
- Simmons LA, Havens JR, Whiting JB, Holz JL. and Bada H.(2009). Illicit drug use among women with children in the United States: 2002-2003. *Annals of Epidemiology*; 19: 187-193.
- Siqueira L, Diab M, Bodian C. and Rolnitzky L. (2000). Adolescents becoming smokers: The roles of stress and coping methods. *Journal of Adolescent Health*; 27: 399-408
- Shigemura J, Ursano RJ. and Morganstein JC. (2020). Public responses to the novel 2019 coronavirus (2019-nCoV) in Japan: mental health consequences and target populations. *Psychiatry Clin Neurosci*. 74(4): 281–282.
- Shors TJ. (2006). Stressful experience and learning across the lifespan. *Annual Review of Psychology*; 57: 55-85.
- Şanlı, Ö. (2017). Öğretmenlerin Algılanan Stres Düzeylerinin Çeşitli Değişkenler Açısından İncelenmesi. *Elektronik Sosyal Bilimler Dergisi*, 16(61): 385-396.
- Tekin E., Çilesiz Z.Y. and Gede S. (2019). Research on the Ways of Coping With Stress and Perceived Stress Levels of Employees in Different, *Ordu University Journal of Social Science Research*, 9(1), 79-89
- Telef, B. B. (2013). Psikolojik iyi oluş ölçeği (PİOO): Türkçeye uyarlama, geçerlik ve güvenirlik çalışması. *Hacettepe Eğitim Fakültesi Dergisi*, 28(3), 374-384.
- Tutkun E. and İmamoğlu O. (2017). Üniversiteli Sporcu Öğrenciler ve Antrenörlerde Stres Düzeyi Ve Benlik Tasarımı İlişkisi, Uluslararası Balkan Spor Bilimleri Kongresi, The International Balkan Conference in sport Sciences (IBCSS2017), Uludağ Üniversitesi Mete Cengiz Kültür Merkezi, 21-23 Mayıs BURSA, [uludagbalkansporbilimleri.org/tr/](http://uludagbalkansporbilimleri.org/tr/), s.456

- Uzun M., Güney G. and İmamoğlu O. (2021). Investigation of Perceived Stress Levels in Individual and Team Athletes during the Corona Virus Epidemic Process, Karabagh International Congress of Modern Studies in Social and Human Sciences Full Text Book-I, (Editor: Ramazan Gafarlı), Karabagh, Azerbaijan, 302-309
- Weiss, A., Bates, T. C. and Luciano, M. (2008). Happiness is a personal(ity) thing: the genetics of personality and well-being in a representative sample. *Psychological Science*, 19(3),205-210.