



Examination of the Relationship Between Psychological Well-Being and Post-Traumatic Growth in University Students who Attend Sports Courses

Spor Eđitimi Alan Üniversite Öğrencilerinde
Psikolojik İyi Oluş ile Travma Sonrası Gelişim
Arasındaki İlişkinin İncelenmesi

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EXAMINATION OF THE RELATIONSHIP BETWEEN PSYCHOLOGICAL WELL-BEING AND POST-TRAUMATIC GROWTH IN UNIVERSITY STUDENTS WHO ATTEND SPORTS COURSES

ABSTRACT

The aim of this study is to examine the relationship between psychological well-being and post-traumatic growth levels in university students who attend sports courses and who do not, whether the characteristics of psychological well-being and post-traumatic growth after the pandemic differ according to demographic (gender, faculty, place of accommodation, exercise habits) variables and the relationship between psychological well-being and post-traumatic growth characteristics after the pandemic. The research, which was designed based on the relational research method, was conducted with 328 participants studying in physical education and sports schools and in other departments. The participants were administered the “Post-Traumatic Growth Scale” and the “Psychological Well-Being Scale” along with a personal information form to ascertain the demographic characteristics. The independent samples t-test was used to compare two independent groups, in which it was determined that the data showed normal distribution. Pearson correlation analysis and multiple linear regression analysis were employed to determine the relationship between the variables. According to the findings obtained, it is noticed that the post-traumatic growth characteristics of university students are medium and psychological well-being levels are high, that post-traumatic growth characteristics and psychological well-being levels of university students studying sports differ significantly from those studying in other departments, that there is a moderate positive relationship between post-traumatic growth characteristics and psychological well-being level, and that post-traumatic growth explains the 12.6% of the total variance which psychological well-being is a significant predictor of. As a result, it has been found that university students who receive sports education have higher levels of post-traumatic growth and psychological well-being compared to students from other departments. Sports is considered an effective tool in the face of trauma-inducing situations such as pandemics.

Keywords: Physical Education, Pandemic, Psychological Well-Being, Trauma.



SPOR EĞİTİMİ ALAN ÜNİVERSİTE ÖĞRENCİLERİNDE PSİKOLOJİK İYİ OLUŞ İLE TRAVMA SONRASI GELİŞİM ARASINDAKİ İLİŞKİNİN İNCELENMESİ

ÖZ

Bu çalışmanın amacı; spor eğitimi alan ve almayan üniversite öğrencilerinde pandemi sonrası psikolojik iyi oluş ve travma sonrası gelişim düzeyleri, pandemi sonrası psikolojik iyi oluş ve travma sonrası gelişim özelliklerinin demografik (cinsiyet, fakülte, yaşanılan yer, spor yapma durumu) değişkenlerine göre farklılaşp farklılaşmadığı ve pandemi sonrası psikolojik iyi oluş ile travma sonrası gelişim özellikleri arasındaki ilişkinin incelenmesidir.

İlişkisel araştırma yöntemi temel alınarak tasarlanan araştırma beden eğitimi ve spor okullarında ve farklı bölümlerde öğrenim gören 328 katılımcı ile gerçekleştirilmiştir. Katılımcılara kişisel bilgi formu ile birlikte “Travma Sonrası Gelişim Ölçeği” ve “Psikolojik İyi Oluş Ölçeği” uygulanmıştır. Verilerin normal dağılım gösterdiği belirlenmiş bağımsız iki grup karşılaştırılmalarında bağımsız örneklem t testi, değişkenler arasındaki ilişkiyi belirlemek amacıyla pearson korelasyon analizi ve çoklu doğrusal regresyon testi kullanılmıştır. Elde edilen bulgulara göre üniversite öğrencilerinin travma sonrası gelişim özelliklerinin orta ve psikolojik iyi oluş düzeylerinin ise yüksek olduğu, spor eğitimi alan üniversite öğrencilerinin travma sonrası gelişim özelliklerinin ve psikolojik iyi oluş düzeylerinin diğer bölümlerde öğrenim gören öğrencilerden anlamlı düzeyde farklılaştığı, travma sonrası gelişim özellikleri ile psikolojik iyi oluş düzeyi arasında orta düzeyde pozitif bir ilişki olduğu ve travma sonrası gelişimin psikolojik iyi oluşun anlamlı bir yordayıcı olduğu toplam varyansın %12.6’sini açıkladığı tespit edilmiştir. Sonuç olarak spor eğitimi alan üniversite öğrencilerinin diğer bölüm öğrencilerine kıyasla travma sonrası gelişimlerinin ve psikolojik iyi oluş düzeylerinin daha yüksek olduğu bulunmuştur. Sporun pandemi gibi travma içeren durumlar karşısında etkili bir araç olduğu düşünülmektedir.

Anahtar Kelimeler: Beden Eğitimi, Pandemi, Psikolojik iyi oluş, Travma.



INTRODUCTION

Flood, earthquake, epidemics, fires, traffic accidents, war, domestic violence, assault, rape, torture, incest and migration experiences in human life can be given as examples of events that cause mental trauma. Such traumatic events lead to mental, physical, social and economic problems on individuals. The trauma-

tic event places a heavy burden on individuals and society. Epidemics and pandemics are also included in this group of traumatic events. Also, post-traumatic stress disorder is a mental disorder that contains emotions such as intense fear and helplessness that threatens the physical integrity of the individual himself or of someone else (Pitman, Rasmusson et al., 2012) and occurs after a severe psychological trauma (Özgen and Aydın, 1999). Although there is no generally accepted definition of the word pandemic, when diseases that have been characterized as pandemics in the historical process are taken into consideration, it is observed that there are similarities and differences in all of them. The commonality of all diseases described as pandemics such as black plague, Spanish flu, Cholera, AIDS, SARS and Swine flu is that they are a serious and important disease, with an impact on wide geographical areas, disease movement, i.e. transmission rates by means of contamination, minimum population immunity, a different variation of a newly recognized or existing disease (Morens, Folkers and Fauci, 2009). COVID-19 also appeared epidemically only in Wuhan, China, in December 2019, before it affected the whole world. However, it was later declared a pandemic by the World Health Organization considering the characteristics such as its spread rate, transmission rates, geographical area where it spreads, and spread through contagion due to globalization.

The current coronavirus pandemic causes traumas on individuals and society due to factors such as the uncertainty of the duration and outcome of the process, the fact that the treatment methods have not yet been fully found, lack of a complete consensus about the general nature of the virus, number of people infected in the world, high death rates, rate of transmission of the disease, the losses experienced, fear of death, radical vital changes, differentiations in social relations, increased domestic violence incidents due to staying at home for a long time, incest, job loss and resulting poverty, increase in substance use, social stigma and discrimination. Individuals' genetic structures, physical characteristics, socio-economic levels, social resources, communication skills, etc. differ and their ability to cope with the challenges they face is not the same (Bolu et al, 2014).

While mental illnesses such as post-traumatic stress disorder (Sakarya and Güneş, 2013) are rarer in individuals with high psychological resilience and psychological well-being, i.e. happier in life, high problem-solving capacities, and strong temperament and personality traits, problems encountered in people with low psychological resilience, psychological well-being, social and personal resources, and communication skills are felt more deeply.

Psychological well-being is a micro-level structure that provides information about how a person evaluates themselves and the quality of their life (Ryff, Magee, Kling and Wing, 1999). Ryff (1989) states that psychological well-being includes self-acceptance, positive relationships with others, autonomy, environmental control, purpose of life and personal development. From a psychological well-being po-

int of view, human well-being is characterized as living well and doing good things rather than feeling good (Forgeard, Jayawickreme, Kern and Seligman, 2011).

The phenomenon of post-traumatic growth identifies positive psychological changes in individuals as a result of situations that create high levels of stress and require struggle (Tedeschi and Calhoun, 1998). It is observed that many different terms are used to describe the positive changes experienced related to the stressful events one is exposed. Linley and Joseph (2004) state that stress-related development, post-traumatic development, post-traumatic growth, perceived benefits, positive adaptation, etc. are used in the field to explain these positive changes. In this study, the term post-traumatic growth (PTG) is used to identify positive changes in university students following traumatic events that involve high levels of stress. PTG occurs in various dimensions.

In this research, the psychological well-being levels and post-traumatic growth of university students (who attend sports courses and who do not) who experience COVID-19 and face a global pandemic for the first time, whose education and education life is interrupted and returned to their families in this process, who continue their education with distance education, who try to keep up with changing living conditions, who live in closed spaces in isolation and spend time in a sedentary manner will be examined, and differences in psychological well-being and post-traumatic growth levels of university students who receive sports education and who do not will be revealed. On the other hand, deterioration in relationships and problems in basic values and beliefs that occur in vital crisis situations can lead to many negative consequences, as well as a wider perspective, new coping skills and the development of individual-social resources (Park and Fenster, 2004; Küçük and Durmuşoğlu, 2022). What makes this study different from other studies is to be able to demonstrate the positive effect that the coronavirus pandemic process could possibly have on students rather than the negative effects it has on students, and to reveal the differences between the psychological well-being and post-traumatic growth characteristics between students who attend sports courses and students who do not attend sports courses. From this point of view, the aim of this study is to examine the relationship between psychological well-being and post-traumatic growth levels in university students who attend sports courses and who do not, whether the characteristics of psychological well-being and post-traumatic growth after the pandemic differ according to demographic (gender, faculty, place of accommodation, exercise habits) variables and the relationship between psychological well-being and post-traumatic growth characteristics after the pandemic.

In line with this objective, answers to the sub-problems below will be sought:

1. What is the level of post-pandemic psychological well-being and post-traumatic growth characteristics in university students who attend and do not attend sports courses?

2. Do post-pandemic psychological well-being and post-traumatic growth characteristics of university students who attend and do not attend sports courses differ significantly according to demographic (gender, faculty, place of accommodation) characteristics?
3. Is there a significant relationship between post-pandemic psychological well-being and post-traumatic growth characteristics in university students who attend and do not attend sports courses?

METHOD

Research Model

This research is designed based on the correlational research method which is defined as examining the relationship between two or more variables without causing any effect on the variables (Fraenkel and Wallen, 2006). In this study, this method is preferred because participants are only asked to respond to the inventory without any effect.

Research Group

Table 1. Demographic characteristics of the participants

Variable	Group	f	%
Faculty	Physical Education and Sports Department	213	64.9
	Other	115	35.1
Gender	Female	172	52.4
	Male	156	47.6
Exercise Habit During the Quarantine	Yes	237	68.3
	No	110	31.7
Total		328	100

The research group consists of a total of 328 randomly selected participants from the physical education and sports departments of universities and from other departments in the Erzincan Binali Yıldırım University. Simple random sampling method is a sampling method in which participants are completely randomized from within the main mass and each unit in the universe is equal in probability to be selected (Tuna, 2016). Of the 328 participants who participated in the study, 52.4% are female, 47.6% are male, 64.9% are students in the physical education and sports department, 35.1% are students from other departments, 68.3% do sports during quarantine and 31.7% are students that are not engaged in any sportive activity.

Data Collection Tools

In the study, Post-traumatic Growth Inventory (PTGI) and Psychological Well-Being Scale, which were adapted into Turkish by Dirik (2006), along with the personal information form, will be used as data collection tools. Literature review has been conducted in determining the scales and the opinions and recommendations of the academicians in the guidance and psychological counseling department at Erzincan Binali Yildirim University have been consulted.

Post-traumatic Growth Inventory (PTGI):

It is designed to measure the positive changes that occur after traumatic life events. PTGI was developed by Tedeschi and Calhoun (1996) and adapted into Turkish by Dirik (2006). The scale is 6-point Likert type, consisting of 21 items and three dimensions "Changes in Interpersonal Relationships (6, 8, 9, 15, 16, 20, 21)", "Changes in Philosophy of Life (3, 7, 11, 14, 17)" and "Changes in Perception of Self" (1, 2, 4, 5, 10, 12, 13, 18, 19). The Cronbach Alpha internal consistency coefficient of the scale is calculated as .92 for the entire scale, as .86 for changes in interpersonal relationships, as .87 for changes in philosophy of life and as .88 for changes in perception of self. The scale is graded between 0-5 points.

Psychological Well-Being Scale:

It was developed by Diener et al (2009-2010) to measure psychological well-being, complementary to existing well-being measurements. Adaptation of the scale into Turkish was carried out by Telef (2013). The Cronbach alpha internal consistency coefficient obtained in the reliability study of the scale is calculated as .80. The items of the Psychological Well-Being Scale are answered between 1 and 7, as I strongly disagree (1) to I strongly agree (7). All items are expressed positively. Scores range from 8 (if all articles are answered with I strongly disagree) to 56 (if all articles are answered with I strongly agree). A high score indicates that the person has many psychological resources and powers. Although the scale does not provide individual measurements of aspects of well-being, it provides an overview of positive functions in different areas that we believe are important.

Table 2. Cronbach Alpha reliability coefficients of the scales used in the research

Variable	Original	In the Research
Psychological Well-Being	.80	.83
Post-Traumatic Growth	.92	.95
Changes in Interpersonal Relationships	.86	.88
Changes in Philosophy of Life	.87	.84
Changes in Perception of Self	.88	.90

It is stated that if the reliability coefficient is .80 and above, the scale is at an excellent level, and if it is between .60-.80, it is at a very reliable level and the items are suitable for measuring the same behavior (Kalaycı, 2018). As a result of reliability analysis, it is observed that the reliability coefficient of the scales is quite high.

Research Ethics

This research was carried out with the approval of Erzincan Binali Yildirim University “Human Researches Ethics Committee” (Decision number: 2020.09. 08-14).

Evaluation of the Data

The data have been saved into the database that is prepared by the researcher in the SPSS 22 Statistics program, and descriptive analysis, independent sample t-test, Pearson’s correlation test and multiple linear regression test have been used.

RESULTS

Table 3. Distribution of Scale Scores

Factor	n	Min	Max	Mean	Sd	Skewness	Kurtosis
Changes in Interpersonal Relationships	328	.00	25	10.94	6.52	.053	-.932
Changes in Philosophy of Life	328	.00	30	16.10	7.00	-.252	-.684
Changes in Perception of Self	328	.00	50	29.63	12.5	-.604	-.504
Post-Traumatic Growth Total	328	2	105	56.69	23.8	-.430	-.600
Psychological Well-Being Total	328	8	56	41.98	9.02	-.861	.705

As presented in Table 3, the lowest score of 328 participants on the post-traumatic growth scale is calculated as 2 and the highest score is calculated as 105. The average score of participants for this scale is 56.69 ± 23.8 . Considering that the lowest score to be taken from the scale is 0 and the highest score is 105, it is found that the participants’ post-traumatic growth characteristics scores are moderate. In addition, the average score of the participants on the psychological well-being scale is 41.98 ± 9.02 . Considering that the lowest score to be taken from the psychological well-being scale is 8 and the highest score is 56, it can be said that the psychological well-being levels of the students are good. The kurtosis and skewness values of all Scale scores are found to be within the range of -1.5, +1.5. Tabaschnick and Fidell (2013) note that the data exhibit normal distribution if the kurtosis and skewness values are within the specified range of values. Furthermore, when Q-Q plot graphs are examined, it can be assumed that the data are distributed normally,

since all values according to all sub-dimensions and total score are collected on or very close to the diagonal.

Table 4. Comparison of participants' scale scores according to department

Factor	Group	n	Mean	Sd	t	p
Changes in Interpersonal Relationships	Physical Education and Sports	213	11.33	6.58	1.45	.146
	Other	115	10.23	6.38		
Changes in Philosophy of Life	Physical Education and Sports	213	17.00	6.68	3.19	.002
	Other	115	14.45	7.29		
Changes in Perception of Self	Physical Education and Sports	213	30.65	12.0	1.95	.051
	Other	115	27.73	13.2		
Post-Traumatic Growth Total	Physical Education and Sports	213	58.99	23.0	2.39	.017
	Other	115	52.42	24.7		
Psychological Well-Being Total	Physical Education and Sports	213	42.77	8.94	2.18	.030
	Other	115	40.51	9.02		

As presented in Table 4, when the post-traumatic growth characteristics and psychological well-being levels of the participants are compared according to their department, it is seen that the post-traumatic growth characteristics, changes in philosophy of life and psychological well-being levels of the students studying in physical education and sports departments are significantly higher than the students studying in other departments ($p < .05$)

Table 5. Comparison of participants' scale scores according to gender

Factor	Group	n	Mean	Sd	t	p
Changes in Interpersonal Relationships	Female	172	10.29	6.24	-1.90	.058
	Male	156	11.66	6.77		
Changes in Philosophy of Life	Female	172	15.60	6.97	-1.37	.170
	Male	156	16.66	7.01		

Changes in Perception of Self	Female	172	28.91	12.7	-1.08	.280
	Male	156	30.42	12.3		
Post-Traumatic Growth Total	Female	172	54.81	23.4	-1.49	.136
	Male	156	58.75	24.2		
Psychological Well-Being Total	Female	172	41.18	8.95	-1.70	.090
	Male	156	42.87	9.05		

As presented in Table 5, when the post-traumatic growth characteristics and psychological well-being levels of the participants are compared according to the gender variable, no significant difference is found between female students and male students ($p>.05$).

Table 6. Comparison of participants' scale scores according to exercise habits during quarantine

Factor	Group	n	Mean	Sd	t	p
Changes in Interpersonal Relationships	Yes	120	10.71	6.43	-.487	.626
	No	208	11.08	6.59		
Changes in Philosophy of Life	Yes	120	16.21	6.58	.210	.834
	No	208	16.04	7.24		
Changes in Perception of Self	Yes	120	30.49	12.2	.938	.349
	No	208	29.13	12.7		
Post-Traumatic Growth Total	Yes	120	57.42	23.0	.422	.673
	No	208	56.26	24.3		
Psychological Well-Being Total	Yes	120	43.73	8.02	2.69	.007
	No	208	40.97	9.42		

As presented in Table 6, when participants' post-traumatic growth characteristics and psychological well-being levels are compared according to their exercise habits during quarantine, it is observed that while there are significant differences in the psychological well-being levels of those who exercise during quarantine compared to those who do not ($p<.05$), there are no significant differences in the

characteristics of post-traumatic growth according to students' exercise habits during quarantine ($p>.05$).

Table 7. Participants' relationship between post-traumatic growth and psychological well-being

	1	2	3	4	5
Changes in Interpersonal Relationships (1)	1	.674**	.732**	.856**	.247**
Changes in Philosophy of Life (2)		1	.788**	.892**	.304**
Changes in Perception of Self (3)			1	.958**	.376**
Post-Traumatic Growth Total (4)				1	.355**
Psychological Well-Being Total (5)					1
Mean	10.94	16.10	29.63	56.69	41.98
Sd	6.52	7.00	12.56	23.87	9.02

* $p<.05$, ** $p<.01$, *** $p<.001$

As displayed in Table 7, it is seen that there is a moderate positive linear relationship between the post-traumatic growth characteristics of the participants and their psychological well-being levels ($r = .355$, $p<0.01$). It is found that there is a weak positive linear relationship between the sub-dimension of changes in interpersonal relationships, one of the characteristics of post-traumatic growth, and psychological well-being ($r = .247$, $p<0.01$), and that there is a moderate positive linear relationship between the subdimensions of changes in philosophy of life ($r = .304$, $p<0.01$) and changes in perception of self ($r = .304$, $p<0.01$). $r = .376$, $p<0.01$) and psychological well-being.

Table 8. Simple linear regression analysis results between scale scores

Psychological Well-Being	B	SE(B)	β	t	p	R^2
Changes in Interpersonal Relationships	.341	.074	.247	4.60	.000	.061
Changes in Philosophy of Life	.392	.068	.304	5.76	.000	.092
Changes in Perception of Self	.270	.037	.376	7.33	.000	.142
Growth Total	.134	.020	.355	6.85	.000	.126

$R=.355$ $R^2=.12.6$

As presented in Table 8, the regression model established shows that participants' post-traumatic growth characteristics and psychological well-being levels constitute a moderate and meaningful relationship ($R=.355$, $R^2=.12.6$, $p<.001$).

Post-traumatic growth characteristics, which are the independent variables included in the model, describe 12.6% of the total variance regarding the level of psychological well-being, which is the dependent variable. This indicates that the 87.4% change in the level of psychological well-being can be explained by different variables that are not included in the regression model.

DISCUSSION AND CONCLUSION

In the study, students' post-traumatic growth characteristics and levels of psychological well-being and their status to interpret the levels of psychological well-being of post-traumatic growth characteristics are examined. The findings of the research are discussed with the support of the relevant literature.

In the study, it is ascertained that the post-traumatic growth characteristics of the participants are moderate. Similarly, in studies on university students, post-traumatic growth status of students was found to be moderately high (Karaman & Tarım, 2018; Kardaş & Tanhan, 2018; Karataş, 2020). In studies examining the impact of epidemics on the change, development and empowerment of people and society, it is highlighted that they create panic, anxiety, worry and stress on people and society due to the fact that epidemics are fatal (Mak et al., 2009; Chua et al., 2004), but in addition, it is emphasized that positive emotions such as increased awareness, helping others, and solidarity arise (Calhoun & Tedeschi, 1999). Another study was conducted in Hong Kong after the SARS epidemic. It was noted that about 60% of the participants in the study felt helplessness, anxiety and anxiety due to SARS, while 70% of the participants paid more attention to their psychological health, more than 60% took the feelings of their family members more into consideration, and 40% spent more time relaxing and exercising (Lau et al., 2006). These studies support the results of the research.

Another result of the study is that participants have high levels of psychological well-being. In the literature, students' psychological/subjective well-being levels show parallelism with this study. Deniz, Erus and Büyükcebeci (2017); Fujita and Diener (1991); Yıldızhan and Yazıcı (2020). It has been found that in particular, physiological/physical diseases that threaten the lives of individuals produce pessimist feelings and thoughts in individuals (Erymaz, 2015), while coping with events that activate pessimism has a significant effect on protecting the mental health of individuals (Duan and Zhu, 2020).

No significant difference has been found between the groups when the students' post-traumatic growth characteristics and psychological well-being levels are compared according to their gender. When the previous studies are examined, it is found that the psychological well-being scores do not differ significantly ac-

ording to gender (Özenç and Gürkan, 2019; Çelikler, 2017; Karaçam and Pulur, 2016; Doğan, 2018; Dursun et al., 2016: 12; Dürü, 2006).

In the study, when the post-traumatic growth characteristics and psychological well-being levels according to the faculties of the participants, it is observed that the students who study physical education and sports education have higher post-traumatic growth characteristics and higher values in its subdimensions - changes in philosophy of life and psychological well-being than the students studying in other departments. When the relevant literature is reviewed, It has been found that participants who engaged in regular sports during the pandemic had higher levels of post-traumatic growth compared to those who did not engage in sports (Xiang et al., 2021). Koç (2007) founded that social activities such as group sports are important in order to eliminate the negative effects of trauma after traumatic experiences. On the other hand studies which reveal that physical activity/exercise/sports activities have a significant effect on the psychological health of the individual have been found. Yavuz and Ilhan (2023) it is concluded that students studying at the Faculty of Sports Sciences had higher levels of psychological well-being compared to students from different faculties. Penedo and Dahn (2005) conducted a cross-sectional and longitude study that found that exercise and physical activity have beneficial effects on various physical and mental health outcomes, and participants who participated in regular physical activity exhibited more desired health outcomes. In Başar study (2018), it is concluded that individuals who exercise regularly have lower scores of depressions, high happiness and higher psychological well-being scores in comparison to those who do not. Similarly, Uğurlu and Şakar (2015) found that individuals who exercise have higher happiness scores than those who do not. In Downward and Rasciute's study (2011), they ascertain that participation in sports has a statistically significant and positive effect on both health and happiness. Mallı and Yildizhan (2018), in their study of secondary school students, found that the subjective well-being levels of the students who played sports are significantly higher than those who do not play sports. In this study too, the fact that students who study in sports in physical education and sports departments have high psychological well-being levels and post-traumatic growth characteristics as opposed to students studying in other departments supports the findings in the literature.

Another result of the study is that there is a moderate positive relationship between the post-traumatic growth characteristics and psychological well-being levels of the participants, a weak positive relationship between the subdimension of changes in interpersonal relationships, which is among the post-traumatic growth characteristics, and psychological well-being, a moderate positive relationship between changes in the philosophy of life and changes in the perception of self-subdimensions and psychological well-being. In addition, it is identified that

the post-traumatic growth characteristics explain 12% of the total variance which psychological well-being which is a significant predictor of.

When the relevant literature is reviewed, it is found to have been emphasized that epidemics cause panic, fear and anxiety on individuals, but they also activate positive behaviors such as helping others, the emergence of a sense of solidarity and awareness (Mak et al., 2009; Chua et al., 2004; Calhoun and Tedeschi, 1999). The study by Weierbach (2017) identifies a positive relationship between post-traumatic growth and psychological well-being. Similarly, the study by Helgeson, Reynolds and Tomich (2006) find a significant correlation between post-traumatic growth and high well-being, as well. Moreover, in the study conducted by Kaplan Kalkan (2020), a positively significant relationship has been found between the sub-dimensions of post-traumatic growth and psychological well-being. In another study, participants who have struggled with the threat of cancer and survived reported to experience various areas of post-traumatic growth and are found to have high levels of psychological well-being (Tallman et al., 2010). The results are parallel to this study.

When the relevant literature is reviewed, studies examining the relationship between concepts such as optimism, hope, forgiveness, life satisfaction, which are included in the scope of positive psychology, just as the concept of well-being, and post-traumatic growth characteristics have been observed. Tedeschi and Calhoun (2004) state that resilience, hardiness, optimism and sense of coherence variables are among the concepts associated with post-traumatic growth. In the study conducted by Tripplet et al., (2012) a relationship has been found between post-traumatic growth and life satisfaction. Likewise, the research conducted by Kardaş and Tarhan (2018) found that men and women with moderate post-traumatic stress levels and low levels of hopelessness recorded high levels of post-traumatic growth.

All in all, it is ascertained that students' post-traumatic growth characteristics are moderate and psychological well-being levels are high, that the post-traumatic growth characteristics and psychological well-being levels of students studying in physical education and sports departments are significantly higher than those of the students studying in other departments, that there is a moderate positive relationship between the post-traumatic growth characteristics and psychological well-being levels of the students, and that the post-traumatic growth characteristics predict the level of psychological well-being.

Author Contribution Rates

Design of Study: YÇY(%100)

Data Acquisition: AYM(% 50), HBE(%50)

Statistical Analysis: HBE(%50), AYM(%50)

Preparation of the Article: YÇY(%40), AYM(%30), HBE(%30)

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