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ORIGINAL RESEARCH

The predictive role of athletic mental energy on psychological resilience

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Abstract

Background: In the field of sports, controlling an individual's emotions is an essential skill for effective performance. It is therefore crucial to understand the current situation of athletes and thus provide better training and emotional regulation resources. **Objective:** The research aims to determine the role of athletic mental energy in psychological resilience and to reveal its relations with each other and with some variables. **Methods:** The study group of the research consists of a total of 462 athlete-students (age 21.36 ± 1.49 years), 138 (29.9%) females and 324 (70.1%) males. The Brief Resilience Scale and the Athletic Mental Energy Scale (AMES) were used in the study. Descriptive statistics, *t*-test and multiple linear regression analysis were applied for data analysis. **Results:** In the research findings, the positive correlation between psychological resilience and all sub-dimensions of the AMES was statistically significant. In the regression model, the significant effect of athletic mental energy on the prediction of psychological resilience was determined ($F(6, 455) = 12.06$, $p < .001$, $R^2 = .14$). It was observed that the males' mean scores in the AMES (calmness) sub-dimension and psychological resilience were higher than those of females while females' mean scores in the AMES (motivation) sub-dimension were higher than those of males. **Conclusions:** In general, we suggest that athletic mental energy contributes significantly to psychological resilience. In addition, it can be said that the predictability of concentration and calmness on psychological resilience is higher than the other sub-dimensions of athletic mental energy.

Keywords: self- recovery, psychological skill, athlete performances, student

Introduction

Individuals may come across many negative situations, shocking, wearing and stressful events in their lives. The reactions of each person to the negative situations and events they are exposed to or the coping strategies they use differ (Doğan, 2015). While some individuals accept defeat in the face of difficulties and give up resisting, others can overcome problems in stressful situations, recover as soon as possible, and continue their everyday life. Individuals with this ability gain self-confidence when they overcome difficulties, and their motivation for success increases even more acutely. The ability to struggle and overcome unexpected problems and uncertainties in life is vital for individuals (Diener, 2000).

According to the positive psychology approach, which examines the strengths of the individual (Duckworth et al., 2005), the potency of the individual to recover and return to his normal life in a short time is explained by the concept of psychological resilience (Doğan, 2015). The concept of *resilience*, which positive psychology emphasizes, is derived from the Latin word *resiliens*, which means that an object with flexible properties can easily take its old form (Greene, 2002). Psychological resilience refers to coping with stress or a negative situation, successfully overcoming this process (Meredith et al., 2011) and staying healthy during a traumatic process (Toktas, 2019). In another definition, psychological resilience can be understood as a process of positive adaptation to a stressful situation in which an interaction is established between personal resources and the environment (Foster et al., 2019). Unexpected events are an important risk factor for psychological resilience (Weick & Sutcliffe, 2007). In sports where competition is intense, athletes often encounter unexpected situations. Therefore, this situation can be seen as a risk factor for the psychological resilience of the athletes.

Researchers point out that the real reason for success is protective factors. The important thing is the belief that protective factors reduce, stop and prevent the risk, regardless of which of these dimensions exist (Oktan et al., 2014). It is emphasized that protective factors include attitudes and skills that enable individuals to adapt (Lee et al., 2012) and reduce the harmful effect by serving as a support to individuals at risk (Rutter, 2007).

Another concept discussed in the research is the concept of athletic mental energy, which is thought to be a protective factor for psychological resilience. According

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to O'Connor (2006), mental energy has more than one meaning and is the specific biological process involved in the physical capacity of brain neurons to do work. An athlete's performance is based on an energy structure (Loehr, 2005) and depends on psychological characteristics, therefore mental energy is also a key factor for athletes (Lykken, 2005). Athletic mental energy is the current energy state of the athlete characterized by confidence, vigour, tirelessness, motivation and concentration intensity. In short, it is an athlete's perception of the current energy state (Lu et al., 2018).

Having the psychological resilience required to be successful and having athletic mental energy that can eliminate the risks despite negativities in the competition are the basic elements of winning for the athlete who perceives his opponent as a threat during the competition where emotions can change frequently.

Controlling one's emotions in the field of sports is a necessary skill for effective performance. Besides the ability to examine and control emotions is the main research focus in the field of sports (Hanin, 2000), it is very important to understand the current situation of athletes and thus to provide better training and emotional regulation resources (Maxwell et al., 2009).

When the literature is examined, studies show that individuals with good psychological resilience generally have high life satisfaction (Rossi et al., 2007) and practical thinking skills (Metzl & Morrell, 2008). In the study conducted by Tilim and Murat (2019) with high school students, a significant negative relationship was found between psychological resilience and substance addiction. In the study of Öz and Yılmaz (2009), it was stated that substance use such as alcohol and cigarettes is among the individual factors affecting psychological resilience. In another study, the average scores of psychological resilience of athlete students were found to be significant in favour of team athletes (Özkara & Özbay, 2019). Again, in the research, it was seen that athletic mental energy positively affects sports courage (Islam, 2022). In another study, Chiou et al. (2020) results investigating the effect of athletic mental energy on the relationship between life stress and burnout in athletes show that athletic mental energy directs the life stress-burnout relationship of athletes. Therefore, having all these features at a high level will not only ensure the continuation of a higher quality sports life, but also play an important role in tackling the problems that may arise in the competitive environment.

In light of all this information, this study was aimed to determine the various relationships between resilience and athletic mental energy in the context of athlete-students and to discover the role of athletic mental energy on psychological resilience. In addition to this first purpose, determining whether the psychological resilience and athletic mental energies of athlete-students differ according to the research variables (gender, alcohol use, smoking, sports types and reading book) constitutes the other purpose of the research.

Methods

Research group

The questionnaire method was used as a data collection technique in the study. The study was conducted in accordance with the Helsinki Declaration Criteria and approved by Tokat Gaziosmanpaşa University, Social and Human Sciences Ethics Committee (date 21.07.2022, session no 11, decision no 184937/01-26). The data collection was voluntary and anonymous. Prior to the data collection, the participants signed an informed consent of participation. Data collection tools were both delivered to the participants via Google Form by transferring to the online environment and applied by the researcher in the classroom by making an appointment with the instructor within face-to-face lesson hours.

The study group of the research consists of a total of 462 students (age 21.36 ± 1.49 years), 138 females (29.9%) and 324 males (70.1%), studying at the faculties of sports sciences, determined by convenience sampling method. In addition, the students of the research group continue their sports life as licensed in amateur or professional leagues, in individual and team sports branches.

Data collection tools

In addition to the demographic information sheet created by the researchers within the scope of the research, the Athletic Mental Energy Scale and the Brief Resilience Scale were used as data collection tools.

The Athletic Mental Energy Scale

The Athletic Mental Energy Scale (AMES), developed by Lu et al. (2018) and adapted into Turkish by Yıldız et al. (2020), consists of a total of 18 items. The scale has a total of 6 sub-dimensions: vigour, confidence, motivation, tirelessness, concentration and calmness. It was stated that its Cronbach's alpha was found to be .91, for vigour was .79, for confidence was .78, for motivation was .79, for concentration was .78 and for calmness was .80. Each of the subdimensions of vigour, confidence, motivation, tirelessness, concentration and calmness consists of three items (Yıldız et al., 2020).

The Brief Resilience Scale

The Brief Resilience Scale (BRS) was developed by Smith et al. (2008) and adapted into Turkish by Doğan (2015), and whose validity and reliability studies were carried out, consists of a total of six items and a single dimension. It is a five-point Likert-type scale, and three items of the scale are the reverse-coding items. The Cronbach's alpha of the scale was found to vary between .80 and .91. High scores obtained from the scale indicate high psychological resilience (Doğan, 2015).

Data analysis

IBM SPSS Statistics (Version 25; IBM, Armonk, NY, USA) was used to analyze the data obtained from the students and for the statistical processes. Primarily, kurtosis and skewness coefficients were examined to determine whether they meet the basic assumptions of the parametric

tests (Tabachnick & Fidell, 2013). It was seen that the obtained scores met the normality assumption. To evaluate the internal consistency of the answers, the Cronbach's alpha coefficient was calculated (Table 1). Afterwards, the demographic characteristics of the research group and scale scores were determined by descriptive statistics (frequency, percentage, arithmetic mean, and standard deviation). The *t*-test was used to determine whether there was a differentiation between independent groups (man and women, alcohol drinker and non-drinker, smoker and non-smoker, team sports and individual sports, the one who reads books and not reading a book). Finally, the multiple linear regression test was used to detect the effect of the independent variable athletic mental energy on the dependent variable psychological resilience.

The mean score obtained from the BRS was 18.91 and the standard deviation was 3.43. It was observed that the highest mean score obtained from AMES was in the motivation dimension (13.99 ± 3.01) and the lowest mean score was in the concentration dimension (10.91 ± 3.04). In addition, skewness and kurtosis coefficients were calculated whether the total scores obtained from the scales provided the assumption of normality or not (Table 1). The values of these coefficients showed that the data were normally distributed.

Results

Overall, 140 (30.3%) of the athlete-students included in the study drink alcohol, 174 of them (37.7%) smoke. While 312 (67.5%) of the participants are interested in team sports, 150 (32.5%) are keen on individual sports. In addition, 268 (58%) of the athlete-students have the habit of reading books regularly.

The *t*-test was applied to determine whether or not the BRF and the AMES scores showed a significant difference in terms of gender variable and the results are shown in Table 2. According to the results of the analysis, there was a significant difference in BRS ($t = 2.94$, $p < .001$). Accordingly, the psychological resilience of male athlete-students ($M = 19.18$) was higher than that of females ($M = 18.29$). In the calmness dimension of AMES, the significant difference ($t = 2.03$, $p = .04$) was in favour of males ($M = 12.38$). On the other hand, it was observed that a significant difference in the motivation dimension of AMES ($t = –3.27$, $p < .001$) was found to be in favour of female athlete students ($M = 14.62$).

The findings concerning the Alcohol Use variable are given in Table 3. As can be seen, the psychological resilience of the athlete-students did not show a significant difference according to alcohol use ($t = 1.84$, $p = .07$). According to the AMES scores, the vigour ($t = –4.20$, $p < .001$), confidence ($t = –2.08$, $p = .04$) and motivation ($t = –4.57$, $p < .001$) of the athlete-students vary depending on alcohol use. Accordingly, the mean scores of non-drinkers in all three dimensions were found to be higher than those who use alcohol.

The findings for the Smoking variable are presented in Table 4. When the vigour sub-dimension was examined, the average scores of non-smoking students ($M = 13.71$) were found to be higher than those who smoke ($M = 12.95$; $t = –2.57$, $p = .01$).

Table 5 demonstrates that the psychological resilience of the athlete-students did not show a significant difference according to the sports type variable ($t = –0.49$, $p = .62$)

Table 1 Distribution of the Brief Resilience Scale (BRS) and the Athletic Mental Energy Scale (AMES) scores ($N = 462$)

Scale	Mean	*SD*	Kurtosis	Skewness	Cronbach's α
BRS	18.91	3.43	2.48	0.41	.76
AMES					
Vigour	13.43	2.99	0.25	–0.63	.72
Confidence	12.75	2.97	0.75	–0.57	.71
Tirelessness	10.92	3.56	–0.25	–0.19	.71
Concentration	10.91	3.04	0.13	–0.10	.73
Calmness	12.19	3.12	0.00	–0.25	.72
Motivation	13.99	3.01	0.36	–0.76	.73

Table 2 Comparison of the Brief Resilience Scale (BRS) and the Athletic Mental Energy Scale (AMES) scores by gender

Scale	Men ($n = 324$)	Women ($n = 138$)	*t*	*p*	Cohen's *d*
BRS	19.18 ± 3.70	18.29 ± 2.61	2.94	< .001	0.27
AMES					
Vigour	13.33 ± 3.08	13.67 ± 2.77	–1.12	.26	–0.12
Confidence	12.60 ± 3.25	13.09 ± 2.17	–1.86	.06	–0.18
Tirelessness	10.84 ± 3.70	11.10 ± 3.22	–0.72	.47	–0.07
Concentration	10.91 ± 3.18	10.94 ± 2.70	–0.09	.93	–0.01
Calmness	12.38 ± 3.09	11.74 ± 3.16	2.03	.04	0.20
Motivation	13.72 ± 3.19	14.62 ± 2.44	–3.27	< .001	–0.32

Table 3 Comparison of the Brief Resilience Scale (BRS) and the Athletic Mental Energy Scale (AMES) scores by alcohol using

Scale	Yes ($n = 140$)	No ($n = 322$)	*t*	*p*	Cohen's *d*
BRS	19.36 ± 3.66	18.72 ± 3.32	1.84	.07	0.18
AMES					
Vigour	12.56 ± 2.82	13.81 ± 2.99	–4.20	< .001	–0.43
Confidence	12.31 ± 3.09	12.94 ± 2.90	–2.08	.04	–0.21
Tirelessness	10.78 ± 3.70	10.97 ± 3.51	–0.52	.60	–0.05
Concentration	11.06 ± 2.82	10.86 ± 3.14	0.63	.53	0.07
Calmness	12.33 ± 3.26	12.13 ± 3.07	0.62	.53	0.06
Motivation	13.04 ± 3.15	14.40 ± 2.86	–4.57	< .001	–0.45

Table 4 Comparison of the Brief Resilience Scale (BRS) and the Athletic Mental Energy Scale (AMES) scores by smoking

Scale	Yes ($n = 174$)	No ($n = 288$)	*t*	*p*	Cohen's *d*
BRS	19.20 ± 3.82	18.73 ± 3.16	1.43	.15	0.13
AMES					
Vigour	12.95 ± 3.23	13.71 ± 2.80	–2.57	.01	–0.25
Confidence	12.67 ± 3.06	12.79 ± 2.92	–0.39	.69	–0.04
Tirelessness	10.85 ± 3.58	10.95 ± 3.56	–0.31	.75	–0.03
Concentration	11.22 ± 2.89	10.50 ± 3.13	0.67	.49	0.24
Calmness	12.31 ± 3.32	12.11 ± 3.00	0.64	.52	0.06
Motivation	13.49 ± 3.17	14.29 ± 2.87	–2.72	.07	–0.26

while their vigour (t = –2.39, p = .02) and concentration (t = 2.99, p < .001) differed significantly depending on the sports types. The mean scores of vigour (M = 13.91, p < .05) of the athlete-students who are interested in individual sports were higher than those interested in team sports (M = 13.20, p = .02). On the other hand, it was detected that the concentration mean scores of the athlete students interested in team sports (M = 11.23, p < .001) were higher than those interested in individual sports (M = 10.28, p < .001; Table 5).

The psychological resilience and athletic mental energies of the athlete-students showed a significant difference according to the variable of the reading book (p < .001). As can be seen in Table 6, the mean scores of those reading books in all dimensions were higher than those who do not. In other words, psychological resilience, vigour, confidence, tirelessness, concentration, calmness and motivation differ significantly depending on the reading book status.

When the zero-order and partial correlations were examined in the multiple linear regression analysis performed to predict psychological resilience by considering the variables of vigour, confidence, tirelessness, concentration, calmness and motivation, it was found that there was a low level of a positive relationship between vigour and BRS (r = .23), but when other variables were checked, it was observed that the correlation between the two variables was (r = .00). It was determined that there was a low level of positive correlation (r = .26) between confidence and BRS; however, the correlation between the two variables was (r = .05) when other variables were controlled. It was found that there was a low level of positive correlation between tirelessness and BRS (r = .20), but when other variables were examined, the correlation between the two variables was (r = .07). It was observed that there was also a low level of positive correlation between concentration and BRS (r = .12), but when other variables were checked, the correlation between the two variables was (r = –.10). The relationship between calmness and BRS was found to be moderate degree positive (r = .34), and the relationship between motivation and BRS was calculated to be low degree positive (r = .18). In other words, if psychological resilience increases, then athletic mental energy increases, and vice versa. As a result, it was put forward that a significant regression model, $F(6, 455)$ = 12.06, p < .001, and 14% of the variance in the dependent variable ($R^2_{adjusted}$ = .14) was explained by the independent variables. According to the standardized regression coefficient (β), the relative order of importance of the independent (predictive) variable on BRS is calmness, concentration, tirelessness confidence, motivation and vigour. In the t-test results regarding the significance of the coefficients, it was seen that the concentration and calmness dimensions were meaningful (significant) predictors of the BRS. It was seen that the effects of vigour, confidence, tirelessness and motivation dimensions on BRS were not significant.

Table 5 Comparison of the Brief Resilience Scale (BRS) and the Athletic Mental Energy Scale (AMES) scores by sports type

Scale	Team sports (n = 312)	Individual sports (n = 150)	t	p	Cohen's d
BRS	18.86 ± 3.40	19.03 ± 3.51	–0.49	.62	–0.05
AMES					
Vigour	13.20 ± 3.08	13.91 ± 2.74	–2.39	.02	–0.24
Confidence	12.65 ± 2.97	12.96 ± 2.98	–1.06	.29	–0.10
Tirelessness	10.92 ± 3.38	10.92 ± 3.93	0.00	.99	0.00
Concentration	11.23 ± 2.84	10.28 ± 3.35	2.99	< .001	0.30
Calmness	12.28 ± 3.17	12.00 ± 3.03	0.91	.36	0.09
Motivation	14.05 ± 3.04	13.86 ± 2.95	0.63	.52	0.06

Table 6 Comparison of the Brief Resilience Scale (BRS) and the Athletic Mental Energy Scale (AMES) scores by book reading

Scale	Yes (n = 268)	No (n = 194)	t	p	Cohen's d
BRS	19.29 ± 3.47	18.39 ± 3.31	2.80	< .001	0.26
AMES					
Vigour	13.99 ± 2.83	12.65 ± 3.04	4.88	< .001	0.46
Confidence	13.26 ± 2.74	12.04 ± 3.15	4.34	< .001	0.41
Tirelessness	11.39 ± 3.50	10.26 ± 3.56	3.42	< .001	0.32
Concentration	11.22 ± 2.83	10.50 ± 3.28	2.46	.01	0.23
Calmness	12.57 ± 3.21	11.66 ± 2.93	3.13	< .001	0.30
Motivation	14.52 ± 2.84	13.25 ± 3.09	4.50	< .001	0.43

Discussion

This research explores the psychological resilience and athletic mental energies of athlete students according to certain variables such as gender, alcohol use, smoking, types of sports and reading book habits, and evaluates the relationship between psychological resilience and athletic mental energy. In the literature, studies were found in which psychological resilience differs according to gender, alcohol use, smoking and sports type, and they are discussed in this section. As well as there is not enough research in the literature related to the mentioned variables and athletic mental energy, there has also been no research related to the variable of reading habits.

The findings obtained in the study show that the psychological resilience scores of the participants differed significantly according to the gender variable and the mean scores were higher in favor of men (Table 2). In the literature, Beşikçi et al. (2021) and Kımter (2020) also revealed in their research that the average psychological resilience is in favor of men. The results of this study are similar to the results of the present study. In some studies, differently from the current research results, it is seen that female athletes have higher psychological resilience scores (Akdeniz et al., 2021; Gençoğlu & Namlı, 2020).

Another finding of the study is that male participants have a higher mean score in the calmness dimension of athletic mental energy than girls, and a significant difference in the motivation dimension is in favor of women. In the literature, unlike the results of the current research, Tatlısu et al. (2022) found that there was no significant difference in the sub-dimensions of the AMES according to the gender variable in their study. Ilhan (2020), on the other hand, stated that the significant difference in the sub-dimension

of confidence and calmness, depending on the gender variable, showed results in favour of males.

No significant difference was detected in the psychological resilience levels of athlete students based on alcohol use (Table 3). When the literature is examined, there are studies stating that there is no significant difference in psychological resilience levels depending on the variable of alcohol use, similar to the results of the research (Gezen-Bölükbaş et al., 2022). Another finding related to alcohol use is that there were statistically significant differences in the mean scores of vigour, confidence and motivation dimensions of athletic mental energy. Accordingly, it can be said that non-alcoholic athletes are more vigorous, more self-confident and more motivated. During the addiction period, the addicted individual may become more depressed, anxious and generally more sensitive to the stress of life when deprived of alcohol or substance (Green Crescent Counseling Center, 2022). It is known that alcohol use has negative effects on the individual and causes behavioural disorders. Rather, studies indicate that the relaxing effect of alcohol reduces social inhibitions and leads to a decrease in attention to behaviour (Aronson et al., 1999). *Vigour*, which expresses strength and health, *confidence*, which states the belief in oneself, and *motivation*, which explains the internal or external impulses to take an action, will only be provided by healthy individuals who do not have a behavioural disorder.

The psychological resilience of athlete students did not change depending on smoking. Notwithstanding, as athletic mental energy, smokers' vigour mean score was statistically found to be lower than non-smokers (Table 4). That is to say, non-smokers can be said to be more vigorous. When the literature is examined, there is a study reporting that there is no significant difference in psychological resilience levels depending on the variable of smoking (Gezen-Bölükbaş et al., 2022). Individuals who are deprived of nicotine, which is an addiction active substance, describe themselves as more nervous and aggressive (Benowitz et al., 2009). In this sense, considering that the vigour levels of non-smokers are generally normal, the fact that individuals deprived of smoking describe themselves as nervous also supports the results of the research.

In another finding of the current study, it was revealed that the psychological resilience of athlete students did not show a significant difference according to sports types (Table 5). Some studies supporting the research findings in the literature also uncover that psychological resilience levels do not differ according to the types of sport (Bingöl, 2015; Kırandi, 2020). Gençoğlu and Namlı (2020), in contrast, reported that the psychological resilience levels of the participants who did individual sports were higher than the participants who were interested in team sports. Regarding the current research results, the main thing for both team sports and individual sports is competition. Therefore, in a sports environment where the main thing is competition, regardless of team or individual sports, psychological resilience is among the leading criteria. The fact that the mean score of the team and individual athletes is similar and there is no statistically significant difference between them explains the necessity of having the same level of psychological resilience, which should be kept in the foreground in competitions.

As another result of the study, it was determined that the psychological resilience and athletic mental energy sub-dimension mean scores of the athlete students who had the reading habit were statistically higher than those who did not (Table 6). Individuals who are open to innovations that will improve themselves and continue to improve themselves in this way are defined as individuals who are at the highest levels in the personal development dimension of psychological well-being. It has been detected that individuals who cannot be at a high level in this dimension are the individuals not making an effort to improve themselves, and who are unwilling and diffident (Ryff, 1989). As can be seen, making an effort to realize oneself is an indispensable factor in being psychologically healthy.

Another finding of the research is that there are positive correlations between vigour, confidence, tirelessness, concentration, calmness, motivation and psychological resilience and that 14% of the total variance in psychological resilience is explained by these variables (Table 7). Nicholls et al. (2010) determined that athletes with high self-confidence had lower pre-competition anxiety and performed better. According to Vealey and Chase's (2008) sport-confidence model, high self-confidence can trigger more effort to emphasize positive emotions in sports. Therefore, it can be said that the positive element of confidence in athletic energy is that athletes make more efforts to maintain their psychological resilience. Concentration, another cognitive element of athletic mental energy, reduces the sport-specific life stress-burnout relationship (Weinberg & Gould, 2015). In a study, it was found that athletes who performed better in important games received higher concentration scores (Abdullah et al., 2016). Studies have also found that the reason for an individual's inability to concentrate on their work in threatening or challenging situations may be reduced ability to focus, impaired information processing, and decreased working memory (Gaillard, 2008). In addition, Lu et al. (2018) found that athletic mental energy was negatively associated with life stress and burnout, and positively associated with the positive state of athletes. In this sense, psychological resilience also refers to the ability to

Table 7 Multiple regression analysis results of the Athletic Mental Energy Scale score on the Brief Resilience Scale item scores

Variable	*B*	*SE*	β	*t*	*p*	Zero-order *r*	Partial *r*
Constant	13.60	.84		16.23	< .001		
Vigour	.01	.08	.01	0.20	.84	.23	.00
Confidence	.08	.08	.07	1.00	.32	.26	.05
Tirelessness	.09	.04	.09	1.52	.13	.20	.07
Concentration	–.13	.06	–.12	–2.11	.03	.12	–.10
Calmness	.34	.06	.31	5.65	< .001	.34	.26
Motivation	.03	.07	.02	0.39	.69	.18	.02

Note. Model = Psychological resilience = 13.60 + Vigour*0.01 + Confidence*0.08 + Tirelessness*0.09 + Concentration*–0.13 + Calmness*0.34 + Motivation*0.03. $F(6, 455) = 12.06$, $R = .37$, $R^2 = .14$, $p < .001$.

recover quickly in the face of challenges and to get to work as soon as possible. Therefore, it can be said that the factors that will facilitate rapid recovery in the face of adversities experienced in the competition are vigour, self-confidence, tirelessness, calmness and motivation, which is the most crucial trigger factor, and they have an essential role. In other words, it can be stated the fact that these features are at the forefront also means that psychological resilience is that strong.

Conclusions

As a result, it was seen that the psychological resilience of athlete students differed according to gender and reading habits, while their athletic mental energies showed differences according to gender, alcohol use, smoking, sports type and reading habits. Additionally, positive relationships were found between psychological resilience and athletic mental energy, and it was revealed that athletic mental energy had a substantial role in predicting psychological resilience. Future studies must be carried out in all universities. In a nutshell, it would be appropriate to examine these issues not only in universities but also in sports high schools. Moreover, examining the research topic in larger sample groups, different variables and different research methods can provide a better understanding of it.

Conflict of interest

The authors report no conflict of interest.

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