

## Level of Anxiety and Burnout among Martial Athletes into 17<sup>th</sup> Mediterranean Games

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**ABSTRACT** The aim of this study was to investigate the level of anxiety and burnout among martial athletes participating in the 17<sup>th</sup> Mediterranean Games. During the study, 336 athletes (142 females, 194 males) were administered with the Spielberg State Anxiety Inventory (SSAI) and the Maslach Burnout Inventory (MBI) in order to collect data regarding their levels of anxiety and burnout. The study data was statistically analyzed using frequency analysis, the independent group t-test, the Pearson correlation test and the one-way analysis of variance (ANOVA) test. The study results demonstrated a positive and significant relationship between the level of burnout and anxiety of the athletes ( $r=-0.764$ ,  $p<0.05$ ).

### INTRODUCTION

Parallel to the technological developments and scientific advances of our present-day world, the intensity and scope of the competition between countries has also begun to increase. Due to this increasingly competitive environment, countries have also started to consider sports as an important aspect of international competition. Thus, in addition to their usual activities for promoting sports such as advertisement and propaganda, countries are nowadays showing less and less reluctance in using illicit substances or exerting psychological pressure to enhance the performance of their athletes. However, athletes are also normal human beings, and it is important for them not to lose sight of the fact that they represent their own greatest value and asset. Among different types of athletes, martial athletes in particular are required to fully reflect their physical strength during competitions. In this context of increasing pressures on athletes, it has become necessary to investigate the level of anxiety and burnout among martial athletes. This is because many researchers who have focused on the relationship between the level of anxiety of athletes and their performance have observed that physical capacity alone is not sufficient for high performance, and that the effect of psychological factors on performance is also significant (Akarcesme 2004).

Isik (2006) defines anxiety as a state of uneasiness and apprehension that is experienced by an individual when faced with a threatening situation. A high level of anxiety causes individ-

uals to display simpler and more rigid behaviors, and to be excessively focused on his/her own anxiety and on pleasing others. However, it is also known that a moderate level of anxiety has a stimulating, protective, and even motivating effect on a person. In case anxiety is well managed, it can allow the individual to work more intensively in order to be successful, and to take precautions against possible difficulties and problems (Akgun et al. 2007).

State anxiety represents an individual's expectation of a negative event or outcome when confronted with a particular situation. Kapikiran (2002) state anxiety is also defined as an emotional status that is associated with an increase in the level of apprehension, fear, stress, and psychological arousal (Zeng et al. 2008). In addition, anxiety can significantly affect the normal daily life of individuals, and is often the reason for their inability to cope with certain environments (Jeffrey 2003).

State anxiety is the subjective fear an individual feels when faced with a stressful situation (Oner and Le Compte 1983). Christopher (2002) defined state anxiety as "the conscious perception of apprehension accompanied by mental fatigue, the activation of the autonomous nervous system, and/or overstimulation" (Bezek 2008).

"Burnout" is a form of stress that is frequently observed in professions that regularly require person-to-person interactions and relations. The concept of burnout was first described by Freudenberger (1974), while its currently accepted definition was proposed by Maslach in 1981.

Maslach defined burnout as a syndrome characterized by chronic fatigue, loss of self-respect, feelings of helplessness and hopelessness, and physical, emotional and intellectual exhaustion that adversely affects the individual's professional life and relations with other persons. Maslach further divided burnout into three dimensions, which are emotional exhaustion, depersonalization, and reduced personal accomplishment (Taycan et al. 2006).

Emotional exhaustion is defined as an individuals' feelings of being overloaded and exhausted due to the amount of work they perform. Depersonalization, which is second dimension of burnout, is defined as the tendency of individuals to develop negative and cynical attitudes and behaviors towards the persons with whom they work. According to another definition, depersonalization is the cold, disinterested, rigid, and even immoral behaviors and attitudes that individuals develop towards their work and the persons they encounter as part of their work (Cordes and Dougherty 1993). Feelings of reduced personal accomplishment, which is the third dimension, refers to the individuals' negative self-assessment regarding the work they perform – in other words, their tendency to feel unsuccessful (Sunter et al. 2006).

In light of this information from the literature, and considering that burnout and anxiety are factors that have a significant effect on both the physical and psychological health of individuals, it is possible to state that our study is significant not only with regards to the performance of athletes, but also with regards to their overall health.

## MATERIAL AND METHODS

The study population consisted of martial athletes participating in the 17<sup>th</sup> Mediterranean Games, while the study sample consisted of 336

athletes (142 females, 194 males) (Table 1). To determine the level of anxiety of these athletes, the Spielberger State Anxiety Inventory developed by Spielberger et al. (1964) was employed. The Turkish reliability and validity studies for this inventory were previously performed by Öner and Le Compte (1983). The inventory consists of a total of 20 items, which are scored from 1 to 4. Scoring for the reversed items is first performed by reversing their respective score. The total score obtained from the inventory can vary between 20 and 80. A higher score indicates a higher level of anxiety, while a lower score indicates a lower level of anxiety (Dursun and Aytac 2009).

To determine the level of burnout among the athletes, the Maslach Burnout Inventory developed by Maslach and Jackson (1981) was employed. This inventory was previously adapted to Turkish by Ergin (1992).

The analysis of the obtained data was performed in a computer environment by using the statistical package program, and *p*-values less than 0.05 were considered as significant.

A frequency analysis was performed to determine the demographic characteristics of the athletes, while the independent group t-test was used to determine the level of anxiety and burnout according to gender, and the one-way analysis of variance (ANOVA) was used to determine the level of anxiety and burnout according to the athletes' branches. To evaluate the relationship between anxiety and burnout, the Pearson correlation test was used.

## RESULTS

An evaluation of the athletes' branches revealed that 133 (39.6%) were included in the judo branch, 122 (36.3%) were included in the karate branch, and 81 (24.1%) were included in the taekwondo branch (Table 1).

**Table 1: The demographic characteristics of the study participants**

Branch	Gender					
	Female		Male		Total	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Judo	55	41.4	78	58.6	133	39.6
Karate	54	44.3	68	55.7	122	36.3
Taekwondo	33	40.7	48	59.3	81	24.1
Total	142	42.3	194	57.7	336	100

An evaluation of the athletes' gender indicated that 142 (42.3%) were female, while 194 (57.7%) were male.

No significant differences were observed in the athletes' level of anxiety according to their gender ( $p > 0.05$ ). Although significant differences were not observed, it was noted that the mean levels of anxiety in all three branches was relatively high (Table 2).

No significant differences were observed in the athletes' level of burnout according to their gender ( $p > 0.05$ ). Although significant differences were not observed, it was noted that the athletes had moderately high scores in the depersonalization and reduced personal accomplishment dimensions, and high scores in the emotional exhaustion dimension (Table 3).

No significant differences were observed in the athletes' level of anxiety according to their branches ( $p > 0.05$ ) (Table 4).

**Table 4: The level of anxiety of the study participants according to their branches**

Branch	N	X	s.d.	f	p
Judo	133	66.38	8.125		
Karate	122	64.04	6.965	1.258	0.496
Taekwondo	81	66.32	7.954		

\*( $p < 0.05$ )

No significant differences were observed in the athletes' level of burnout according to their branches ( $p > 0.05$ ). Although significant differences were not observed, it was noted that the athletes had moderately high scores in the depersonalization and reduced personal accomplishment dimensions, and high scores in the emotional exhaustion dimension (Table 5).

Evaluation of the data indicated a positive and significant relationship between anxiety and the emotional exhaustion dimension ( $r = 0.792$ ,

**Table 2: The level of anxiety of the study participants according to gender**

Branch	Gender	X	s.d.	t	p
Judo	Male (N=78)	67.28	8.125	-2.281	0.143
	Female (N=55)	65.48	7.258		
Karate	Male (N=68)	64.72	6.965	-4.258	0.257
	Female (N=54)	63.45	6.359		
Taekwondo	Male (N=48)	66.91	7.954	-3.257	0.356
	Female (N=33)	65.77	7.125		

\*( $p < 0.05$ )

**Table 3: The level of burnout of the study participants according to gender**

Dimensions	Gender	N	X	s.d.	t	p
Depersonalization	Male	194	6.27	2.528	-1.221	0.078
	Female	142	6.62	2.414		
Emotional Exhaustion	Male	194	18.74	5.533	-0.098	0.875
	Female	142	18.62	5.234		
Reduced Personal Accomplishment	Male	194	20.41	6.496	-0.257	0.789
	Female	142	20.91	6.125		

\*( $p < 0.05$ )

**Table 5: The level of burnout of the study participants according to their branches**

Dimensions	Branch	N	X	s.d.	t	p
Depersonalization	Judo	133	6.41	2.145	2.146	0.737
	Karate	122	6.35	2.136		
	Taekwondo	81	6.28	2.321		
Emotional Exhaustion	Judo	133	18.26	4.259		
	Karate	122	18.69	4.109		
	Taekwondo	81	18.37	5.348		
Reduced Personal Accomplishment	Judo	133	20.18	3.459		
	Karate	122	20.36	4.267		
	Taekwondo	81	20.49	3.741		

\*( $p < 0.05$ )

$p < 0.05$ ), between anxiety and the depersonalization dimension ( $r = 0.746$ ,  $p < 0.05$ ), and between anxiety and the reduced personal accomplishment dimension ( $r = 0.754$ ,  $p < 0.05$ ) (Table 6).

### DISCUSSION

The following conclusions were reached within the scope of this study investigating the level of anxiety and burnout among martial athletes participating in the 17<sup>th</sup> Mediterranean Games.

No significant differences were observed in the athletes' level of anxiety according to their gender ( $p > 0.05$ ). In addition to this, it was determined that the mean levels of anxiety in all three branches were relatively high. The high level of anxiety among the athletes may have been associated with the fact that they represented their national team and hoped to win the competitions in the name of their country; or it might have similarly been due to the pressure they personally exerted on themselves to win and succeed in a martial sports. Belli et al. (2014) previously investigated the level of anxiety among the participants in the 25<sup>th</sup> World University Games, and identified no significant differences with respect to gender. In a similar study, Bingol et al. (2012) investigated the level of anxiety among national taekwondo athletes before matches and competitions, and identified no significant differences with respect to gender. In his study on experienced athletes, Engur (2002) investigated state anxiety levels according to gender, and also identified no significant differences in anxiety with respect to gender. In a study on taekwondo athletes, Yucel (2003) also determined that the level of anxiety showed no significant differences according to gender. The findings of these researchers are in agreement with the results of the current study. The literature also has examples of studies that identified a significant difference in the level of anxiety according to gender. Several examples of these include the studies of

Dursun and Aytac (2009), Sahin (2009), and Ghaderi et al. (2009). The findings of these researchers are not in agreement with the results of the present study.

The level of burnout of the athletes showed no significant differences according to gender ( $p > 0.05$ ). Although significant differences were not observed, it was noted that the athletes had moderately high scores in the depersonalization and reduced personal accomplishment dimensions, while having high scores in the emotional exhaustion dimensions. In the studies performed by Gencay (2007) on physical education teachers, by Kirilmaz et al. (2003) on elementary school teachers, and by Cokluk (1999) on the teachers and directors of a school for mentally disabled and hearing-impaired children, it was determined the level of burnout did not vary significantly according to gender. In a study conducted by Belli et al. on the workers of the coordination center for the 25<sup>th</sup> World University Winter Games, it was also observed that the level of burnout showed no significant differences according to gender. On the other hand, in the studies conducted by Ergin (1992) doctors and nurses, and by Akcamete et al. (2001) on teachers, significant differences were identified in the level of burnout according to gender. The findings of these two studies are not in agreement with the results of the current study.

### CONCLUSION

In this study, the evaluation of the relationship between the level of anxiety and burnout of martial athletes revealed that the relationship between anxiety and the emotional exhaustion dimension ( $r = 0.792$ ,  $p < 0.05$ ), between anxiety and the depersonalization dimension ( $r = 0.746$ ,  $p < 0.05$ ), and between anxiety and the reduced personal accomplishment dimension ( $r = 0.754$ ,  $p < 0.05$ ) were positive and significant. In other words, the study results demonstrated that an

**Table 6: The relationship between the study participants' levels of anxiety and burnout**

		<i>Anxiety</i>	<i>Emotional exhaustion</i>	<i>Depersonalization</i>	<i>Reduced personal accomplishment</i>
<i>Anxiety</i>	Pearson	1000	0.792**	0.746**	0.754**
	P		0.000	0.000	0.000
	N	336	336	336	336

\*( $p < 0.05$ )

increase in the level of anxiety was associated with an increase in the level of emotional exhaustion, depersonalization, and a decrease in the sense of personal accomplishment. Thus, it is possible to state that athletes with a high level of anxiety, and who hence experience higher levels of both emotional and personal burnout, cannot be expected to reflect their optimum performance in the games and competitions in which they participate. To obtain maximum efficiency and optimum performance from athletes, it is necessary for trainers and managers to take measures in order to reduce the athletes' level of anxiety. Based on the data obtained from national team athletes participating in a highly important sports event, the authors of the current study determined that martial athletes have a high level of anxiety, and that these higher levels of anxiety are associated with an increase in the level of burnout. Based on this observation, it can also be said that martial sports have an effect of increasing the level of anxiety. Taking into consideration that individuals working in high-stress environments can potentially develop stress disorders and depressive behaviors, high levels of anxiety among athletes is not only a cause for concern with respect to obtaining optimum performance, but it is also a cause for concern with respect to the athletes' health. In conclusion, to prevent high levels of anxiety and burnout from having adverse events both at the level of individuals and at the level of the national team's performance, it is necessary for trainers, administrators, the federation, and the relevant authorities to effectively implement measures to reduce the levels of anxiety and burnout among martial athletes.

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