

## **Investigation of self efficacy and burnout levels of Taekwondo athletes**

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### **ABSTRACT**

*The aim of this study is to investigate the self-efficacy and burnout levels of taekwondo athletes. The study group constituted 222 athletes participated to the Youth Taekwondo Championship 2011-Turkey. Self efficacy and Maslach Burnout Scale were used for data collection in the study. For analyzing data SPSS 16.0 was used and Independent samples t-test, One Way ANOVA, Pearson's Correlation tests applied. Looking at the personal characteristics of the participants, 58.6% of the athletes was 15-17 ages, 89.2% of the athletes graduated from a secondary school, 58.1% of were male and 19.4% of were participated to the national team 11 times or above. As a result of the study, a negative weak relationship between self-efficacy, depersonalization and emotional exhaustion sub-dimensions, a positive strong relationship have found between emotional exhaustion and depersonalization sub-dimensions. It is also found that with the decrease of the educational status depersonalization and emotional exhaustion increase, with the increase of being a national team athlete depersonalization and emotional exhaustion decrease and this situation affect the personal accomplishment.*

**Key words:** Taekwondo, Self-Efficacy, Burnout

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### **INTRODUCTION**

Succeed of athletes in their branches is as well as obtain good education, also directly related with the capabilities and belief of achievement. In this process, athlete's self efficacy belief is one of the effective factors. Athlete's self efficacy beliefs determine the quality of education, methods and techniques used in competitions, the participation to learning and the status of success. In this respect, it is expected that successful athletes first of all have high self-efficacy beliefs [1].

Self efficacy belief is one of the basic concepts found at the center of Albert Bandura's Social Learning Theory. According to Bandura (1994), self efficacy belief is beliefs related to the capabilities of showing high performance that will affect the life of individuals [2]. According to Kiremit (2006), self-efficacy beliefs determine thoughts, behaviors and the way of motivation of the people. Self efficacy belief has an impact on the performance by selecting the task, using strategy and the persistency related with the task of the learner [3]. Self efficacy belief has very strong effects on opinion type, emotional responses and the level of success of the people. While people with high self efficacy belief may be more convenient and efficient when they faced with very difficult jobs, people with low self efficacy belief believe that the jobs they will do are even harder in reality [4]. This type of opinion as well as increasing anxiety and stress, it also constricts one's point of view about solving a problem.

One of the most important problems resulting from the insufficiency is burnout feeling. Many problems which athletes faced with and forced to cope with cause burnout feeling. Burnout in general is a state of physical and emotional depression occurs as a result of unable to cope with the difficulties about one's targets [5]. Burnout is a process that occurred as a result of heavy work stress that causes to feelings like emotional, depersonalization and reduction of personal success [6]. According to Maslach et al. (2001) burnout is a prolonged response to chronic emotional and interpersonal stressors on the job [7].

One of the negative effects of burn out on the sporting life is insufficient attention in trainings and competitions by athletes. Athletes with burn out do not care the need of their club and continue their sporting life displaying disrespectful and rude behaviors. According to Maslach (2001), this situation causes a decline in the performance of the individual and this decline generally reflected in the quality of the job [7]. As a result of the lower performance, motivation also decline and the athletes feel themselves frustrated. An individual like this from now on does not care the job and also does not worry about being more successful. Therefore this kind of individual does not show more effort for the job [8].

Depending on the burning out, reduction occurs in success and sufficiency beliefs. Creativity destroyed and power of the challenge weakened. Athletes begin to believe that the efforts do not work, there is an intimidation caused by not to change of the perception of the failure. According to the Pajares (2002), the greater the sufficiency belief means the more effort and greater resistance against the obstacles by individuals [9]. From this perspective, burnout affects positively or negatively of the psychological and physiological status of the athletes in sports environments requires more patience and dedication for having sportive success, that's why the relationship between self-efficacy and burnout is very important. In this respect, the aim of the study is to investigate the level of teakwondo athletes' self-efficacy and burnout.

## MATERIALS AND METHODS

### Participants

A total of 233 voluntary athletes (140 Males and 93 Females) participated to the national team selection were selected by incidental sampling method as participants. Since inaccurate and incomplete surveys were excluded, a total of 222 surveys evaluated.

### Data Collection Tools

The second part of the survey is Maslach Burnout Inventory (MBI) that composed of 22 questions. This inventory translated into Turkish by Ergin (1992), validity and reliability made by Çam (1992).

**Table 1: The Sub-dimensions of Burnout Inventory**

	<i>Numbers of Question</i>	<i>Question Numbers</i>
Emotional Exhaustion	9	1.2.3.6.8.13.14.16.20
Depersonalization	5	5.10.11.15.22
Personal accomplishment	8	4.7.9.12.17.18.19.21.

As a result of the scoring in MBI, total score and subscale scores obtained. Three sub-scale scores for each item evaluated between 0-4 points, these points collected separately for each sub-scale and by this way obtained points from sub-scales calculated for individuals. While Emotional exhaustion and depersonalization sub-dimensions include positive expressions, personal accomplishment sub-dimension includes negative expressions. In this context, negative expressions should be pointed in opposite direction. So that while getting higher scores from Emotional exhaustion and Depersonalization sub-scales refer to burnout, lower scores from Personal accomplishment refer to burnout.

Accordingly while items constitute the Emotional Exhaustion and Depersonalization sub-scales scored as never = 0, very rare = 1, sometimes = 2, most of the time = 3, always = 4; the items constitute the Personal accomplishment sub-scale scored in opposite direction as always = 0, most of the time = 1, sometimes = 2, very rare = 3, never = 4. The scores of the sub-scales calculate by this way. With the increase of the scores obtained from these three sub-scales, the burnout level increase too.

To determine the burnout level, the burnout scores at the first 1/3 of the frequency considered as low, the burnout scores at the mid 1/3 of the frequency considered as normal and the burnout scores at the last 1/3 of the frequency considered as high [10]. While evaluating the relationship among these sub-scales the scores of the each sub-scales considered separately and do not composed with one total score [11].

As well as there are studies support that a single burnout score can be achieved with the collection of sub-dimensions, burnout have not conceptualized as a variable separated into two groups as existing or non-existing [12].

**Table 2: Point values determined for this research**

	High	Middle	Low
Emotional exhaustion	30 and above	19-29	8-18
Depersonalization	23 and above	15-22	6-14
<b>Personal accomplishment</b>	30 and above	19-29	8-18

**Table 3: Reliability values belongs to burnout scale**

	All items	Sub-dimensions		
		Emotional exhaustion	Depersonalization	Personal accomplishment
Cronbach's Alpha Value	0.81	0.78	0.73	0.80

**Self Efficacy Scale:** This scale was developed by Riggs et al. (1994). It was adapted to Turkish by Öcel (2002) and constitutes 12 items [13]. The items are 5 Likert type (never, sometimes, every month, every week, everyday) and from the collected marked numerical values a single efficacy score obtained. The lowest score obtain from the scale is 10 and the highest score is 50. The higher score is considered as a strong self-efficacy belief. The internal consistency coefficient of the scale was calculated as 0.61.

**Data Analysis**

The descriptive statistics, Analysis of Variance (One Way ANOVA) and Independent Samples t-test for unrelated measurements, LSD test for determining between which groups have significant difference, Pearson's Correlation test for evaluating the relationship between two variables were used. SPSS 16.0 (Statistical Package for Social Sciences) was used for data analysis.

**RESULTS**

At this chapter the demographic findings of the athletes participated to the study have been investigated, burnout and self-efficacy relation has been researched.

**Table 4. Personal characteristics**

Variables	Groups	f	%
Gender	Male	129	58,1
	Female	93	41,9
Educational Status	Primary Education	4	1,8
	Secondary Education	198	89,2
	Graduate and Post graduate	20	9,0
	0	50	45,8
The Status of Being National Player	1-10	38	34,8
	11 and above	20	19,4

n=222

The personal characteristics are shown in table 4. As can be seen from the table above, 58.1% of the 222 athletes are male, 41.9% are female, 89.2% of the participants have secondary education degree and 45.8% of the participants are in national team.

**Table 5: The relationship between Self-Efficacy and Burnout Levels**

Sub-Dimensions		Personal accomplishment	Depersonalization	Emotional exhaustion
Self-efficacy	r	,112	-,274**	-,339**
	p	,097	,000	,000
Personal accomplishment	r	1	,131	-,24
	p		,051	,726
Depersonalization	r		1	,752**
	p			,000
Emotional exhaustion	r			1
	p			

N=222, \*\*p<0.01

The relationship between self-efficacy and burnout levels of the athletes is shown in table 5. As can be seen in table 5, there is a negative significant relationship between sub-dimensions of self-efficacy and depersonalization of the

athletes. In addition, there is a negative significant relationship between self-efficacy and emotional exhaustion too. Looking at the table it also seen that there is a positive strong relationship between emotional exhaustion and depersonalization.

**Table 6: The Comparison of Self-efficacy and Burnout scores according to being national team player status**

Variables		KT	sd	KO	F	p	Significant Difference
Self-efficacy	Between groups	192.492	3	96.246	2.660	.072	
	Within groups	7924.828	219	36.186			
	Total	8117.320	222				
Personal accomplishment	Between groups	304.493	3	152.247	5.814	.003	3-1
	Within groups	5734.502	219	26.185			
	Total	6038.995	222				
Depersonalization	Between groups	88.347	3	44.173	2.151	.119	
	Within groups	4496.987	219	20.534			
	Total	4585.333	222				
Emotional exhaustion	Between groups	326.838	3	163.419	3.940	.021	2-1
	Within groups	9084.482	219	41.482			
	Total	9411.320	222				

*Period of being a national team player: 1.group 0, 2. group 1-10, 3.group 11 and above*

Data obtained from the statistical analysis made for determining the relationship between self-efficacy and burnout score according to being national team player status is seen in Table 6. According to the table, it is seen that there is not a significant different between self-efficacies of the participants in terms of the levels of being a national team player [ $F_{(2-219)} = 2.660$ ;  $p > 0,05$ ]. There is a significant difference on behalf of participants be a national team player 11 times and above for personal accomplishment [ $F_{(2-219)} = 5.814$ ;  $p < 0,01$ ]. In addition there is a significant difference between the athletes who participated to the national team 1-10 times and athletes who did not participated to the national team on behalf of the athletes participated to the national 1-10 times [ $F_{(2-219)} = 3.940$ ;  $p < 0,05$ ]. There is not any significant difference between the groups in terms of depersonalization sub-dimension [ $F_{(2-219)} = 2.151$ ;  $p > 0,05$ ].

**Table 7: The comparison of Self-efficacy and Burnout scores according to gender**

Variables	Gender	N	Mean	Std. Deviation	t	p
Self-efficacy	Male	130	38,7287	6,54880	-1.560	.107
	Female	92	40,0108	5,25335		
Personal Accomplishment	Male	130	25,5426	5,47866	-0.431	.661
	Female	92	25,8495	4,88108		
Depersonalization	Male	130	15,0930	4,83225	1.649	.101
	Female	92	14,0753	4,09198		
Emotional Exhaustion	Male	130	18,8295	6,77902	1.520	.130
	Female	92	17,4839	6,10704		

As can be seen in table 7, there is not significant difference between the self-efficacy perceptions of the athletes in terms of gender ( $P > 0.05$ ).

**Table 8: The comparison of Self-efficacy and Burnout scores according to educational status**

Variables		KT	sd	KO	F	p	Significant Difference
Self-efficacy	Between groups	6.701	3	3.350	.90	.914	
	Within groups	8110.619	219	37.035			
	Total	8117.320	222				
Personal accomplishment	Between groups	286.445	3	143.223	5.453	.005	2-3
	Within groups	5752.550	219	26.267			
	Total	6038.995	222				
Depersonalization	Between groups	30.778	3	15.394	.740	.478	
	Within groups	4554.545	219	20.797			
	Total	4585.333	222				
Emotional exhaustion	Between groups	136.656	3	68.328	1.613	.202	
	Within groups	9274.664	219	42,350			
	Total	9411.320	222				

*Groups: 1. Primary education, 2. High School, 3. University*

It is seen from table 8 that there is not significant difference between the self-efficacies of the athletes in terms of educational status [ $F_{(2-219)} = 0.90$ ;  $p > 0,05$ ]. There is a strong significant difference between the groups in personal accomplishment sub-dimension on behalf of secondary education degree [ $F_{(2-219)} = 5.453$ ;  $p < 0,01$ ]. In addition to these findings, as a result of the statistical analysis, there is not any difference in depersonalization and emotional exhaustion sub-dimensions [ $P > 0.05$ ].

## DISCUSSION AND CONCLUSION

At this study, self-efficacy perceptions and burnout levels of the taekwondo athletes have been investigated in terms of variables and the correlation of the levels have been evaluated.

As can be seen in table 4, 58.1% of the 222 participants are male, 41.9% of are female and 89.2% of the participants have secondary education degree. When looking at the participants in terms of participation to the national team it is seen that 45.8% of the athletes never participated to the national team, 19.4% participated to the national team 11 times and above.

According to table 5, it is seen that there is a negative weak relationship between self-efficacy and depersonalization sub-dimensions ( $r=-0.274$ ,  $p<0.01$ ). With the reduction of the self-efficacy, the level of depersonalization is increasing. This situation can be explain with the factors that cause to physical and psychological deterioration like tiredness, exhaustion, loss in weight, physical complaints, strains in showing performance, loosing the ideals and enthusiasm against to the sports, sensitiveness, being cynical and accusing against team mates. The previous studies on this subject indicate that there is an important relationship between emotional exhaustion that make hard the interaction with the people and depersonalization [8, 12, 14, 15].

There is a weak negative and significant relationship between the self-efficacy and emotional exhaustion sub-dimensions ( $r=-0.339$ ,  $p<0.01$ ). Burnout first of all appears with the exhaustion of the emotional resources of the individual and concluded with the exhaustion of the individual emotionally. Emotional exhaustion is the most obvious dimension of the complex burnout syndrome. From this perspective, high levels of depersonalization in athletes may be as a result of the suppression the emotions; it may also be as a result of the pressure caused by the competitiveness and the expectations of being successful [16]. Athletes mention from this dimension to represent the deterioration, energy loosing, exhaustion or tiredness of them or the others.

Individuals exhausted emotionally will restrict the relation with other people and move away psychologically from the people at the next step. In this way, depersonalization sub-dimension stands out. It can be said that life become more complex and ungovernable, the training quality decrease and performance negatively affected in athletes with high depersonalization. As a result of the study it has been found that there is a strong positive relationship between emotional exhaustion and depersonalization sub-dimensions. Scores obtained from the burnout sub-dimensions show that the study sample is in critical status in terms of emotional exhaustion and depersonalization sub-dimensions. It is understood that with the increase of the emotional exhaustion depersonalization increase with the same ratio.

Paying no attention to the coaches and administrators, displaying negative reactions against team mates are frequent behavior types. This situation makes think that athletes feel themselves physically and psychologically very tired and worn-out, they also affected from the job stress very much and in addition the athletes have problems with the other people around them [17]. At this kind of athletes it can be expected that if these ambiguities and problems continue in the future, their sports life substantially decrease. This is very important situation in the acceptance or not of the athletes in their club. Karakuş (2008) and Kartepe (2011) indicate the importance of organizational and social support in decreasing emotional exhaustion and burnout in their studies [18, 19].

As can be seen in table 6, there is not statistically significant difference between the self-efficacies of the athletes in terms of the status of participation to the national team [ $F_{(2,219)}= 2.660$ ;  $p>0,05$ ]. However, there is a significant difference in personal accomplishment sub-dimension on behalf of the athletes participated to the national team 11 times or above [ $F_{(2,219)}= 5.814$ ;  $p<0,01$ ]. Also there is a significant difference between the athletes participated to the national team 1-10 times and athletes do not participated to the national team ever on behalf of the athletes participated 1-10 times [ $F_{(2,219)}= 3.940$ ;  $p<0,05$ ]. Self-efficacy is a perception developed by means of time and experiences. From this perspective, stressful training and competition environments have not changed the self-efficacy perceptions of the sufficiently experienced athletes [20]. As a result of the analysis it has been found that there is not significant difference between the groups in depersonalization sub-dimension [ $F_{(2,219)}= 2.151$ ;  $p>0,05$ ]. Balcıoğlu et al., (2008) indicated that the national team athletes do not physically and psychologically feel very tired and worn-out, they do not affected so much from the job stress, their relationship with other people around them is regular and humanist and these features unduly occupy a place in the life of taekwondo athletes [21]. When we looked at table 7, it is seen that there isn't statistically significant difference between the burnout levels in terms of gender ( $P>0.05$ ). To be male or female does not affect the burnout levels of the athletes. The underlying reason for this is there is not any importance of gender in Taekwondo sports, the roles do not change with gender. But the studies on gender did not exhibited consistent results. While some of the studies indicated that females experience more exhaustion than the males [22, 23, 24, 25, and 26]. Some studies indicated that males encounter exhaustion

more than the females [16, 27]. In addition some of the studies on this subject indicated that there is not any difference between males and females in terms of exhaustion [28, 29, 30, 31]. The results obtained from this study may be the indicator that male and female athletes affected from the factors inside the team equally.

As a result of the analysis it has been found that there is not statistically significant difference between self-efficacies of the athletes in terms of educational status (Table 8) [ $F_{(2,219)}=0.90$ ;  $p>0.05$ ]. However, statistically high significant difference was found between the in personal accomplishment sub-dimension on behalf of secondary school degree [ $F_{(2,219)} = 5.453$ ;  $p<0.01$ ]. With the increase of the educational status personal accomplishment level increase too. It can be thought that the underlying reason for this result is due to the increment of the expectations with the increment of the educational degree and the individuals with high educational degree quickly adapted the changing and developing training systems. According to Balkıs et al. (2011), the decline in the educational degree plays very important role in declining of personal accomplishment. It is accepted that the higher personal accomplishment is an indicator for individual positive consideration. However the effect of the educational status on burnout has been indicated in some studies too (Polat, 2006; Aksoy, 2008; Tatlıcı & Kırımoğlu, 2008; Gezer et al. 2009), some of the studies showed that educational status do not affect personal accomplishment [32, 33, 34]. The complexity of the relationship between educational degree and burnout is due to studies which found different results from each other. It can be said that the better education brings better working environment and performance [35, 36, and 37].

At this study statistically significant different has not been found in depersonalization and emotional exhaustion sub-dimensions [ $P>0.05$ ]. Similarly Skaalvik et al. (2008) found that emotional exhaustion and depersonalization levels do not affect burnout. This finding can be interpreted as there is a significant relationship between self-efficacy and burnout levels. The underlying reason for not to have burnout in depersonalization and emotional exhaustion levels in taekwondo athletes may be due to being comfortable in their teams, getting enough support, feeling protected, not to come through conflicts and working restful in an environment devoid of stress [38]. These factors are very important both for athletes and their clubs. It is thought that displaying intended behaviors by the athletes is directly proportional with the satisfaction intended to the possible expectations such as care, respect and fair selection environment. Çimen, (2007) found that, the underlying reason for the selection of taekwondo sports by the people in Turkey loves this branch and being pleased with being successful. The self-efficacy belief of the athlete affects the quality of sportive performance, learning desire and understanding the thoughts things [39]. According to Sürgevil (2006), the higher self-efficacy perception plays very important role challenging with burnout. So that elite athletes first of all should have higher self-efficacy belief [40]. As a result of the study, a negative weak relationship between self-efficacy, depersonalization and emotional exhaustion sub-dimensions, a positive strong relationship have found between emotional exhaustion and depersonalization sub-dimensions. It is also found that with the decrease of the educational status depersonalization and emotional exhaustion increase, with the increase of being a national team athlete depersonalization and emotional exhaustion decrease and this situation affect the personal accomplishment [41, 42, and 43].

In this respect, self-efficacy and burnout perceptions are very important properties in the process of creating elite athlete. Since the self-efficacy beliefs of the elite athletes are strong it is thought that this kind of athletes will spend more effort for creating effective learning environment. That's why, it is suggested that applications should be added in training programs to empower the self-efficacy beliefs and it is also suggested that self appraisal should be possible about technical applications carried out in a competition.

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