

The Effect of Mental Toughness of Individuals Doing Outdoor Sports on their Decision-Making Skills

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Abstract

This study intends to examine the impact of the mental toughness of athletes doing outdoor sports on their decision-making skills. The study population is composed of 504 athletes doing outdoor sports in various disciplines in Turkey in 2017. The mental toughness in sports scale developed by Sheard et al. (29) and adapted to Turkish by Altıntaş and Bayar Koruç (1) and the Melbourne Decision Making Scale I-II Scale developed by Mann et al. (35) and adapted to Turkish by Deniz (11) were used. The Independent Samples T test was used to analyze the data obtained as well as the One Way Analysis of Variance (One Way Anova) used in case of the existence of more than two groups and the correlation analysis for the relationship between the two groups. As a result, significant differences were found by the variables gender, marital status, age, educational status, the type of outdoor sports engaged in and experience. Accordingly, mental toughness has effects on decision-making skills when doing outdoor sports. There is a low level of positive correlation between mental toughness and decision-making skills. It is thought that the seasons and the types of outdoor sports done have an impact on these results.

Key words: Outdoor sports, mental toughness, decision-making

INTRODUCTION

Living and spending time in nature has its benefits (17). People turning to different sports have begun to choose among sports branches that give them joy and push their boundaries (38). Extreme sports, adventure sports, action sports, and even individual outdoor sports have shown a large increase in popularity over the last 20 years (28). Between 2000 and 2007, the number of people participating in one or more outdoor sports activities increased by 4.4%, from 208 million to 217 million (7). Between 1990 and 2006, the number of members of the British Mountaineering Council increased by 37,514 (12, 2). On the basis of this exponential increase, investigators explored the benefits of doing outdoor sports and found that it has positive influences on taking responsibility, leadership skills, decision-making, trust, socialization, happiness and risk taking (34). Those who do outdoors sports often have agile personalities.

They are usually strong, tough, and well-disciplined people who have to make immediate and correct decisions (24).

Mental toughness is one of the most important psychological components for good performance and has recently attracted attention as an important study topic (3, 21, 10). Mental toughness is positive psychological capacities that can help one recover in a number of negative situations such as mishaps, failures, conflict situations, or increased responsibility (25). Mentally resilient athletes tend to be highly competitive, decisive, self-motivated, focused in stressful situations, resilient in the face of difficulty, and highly self-confident even after failure (9). Mental strategies such as focus, mental stability, setting short-term goals, having a track record in climbing, knowledge of one's own body, feeling supported by other climbers and athletes, and believing in one's own capacity are crucial for success in climbing (4). Mental toughness is a

clear strategy to cope with obstacles in nature and in the mountains. A mountain-climber climbing Everest once said, "Mental toughness is extremely important. Some people are more affected by high altitudes. There is no comfort at high altitudes, so you must be mentally and physically tough; otherwise you will have to go back" (4:19), pointing to the significance of mental toughness for dealing with challenges. Due to the inherent risk of injury and death, a tremendous amount of physical toughness and mental strength are necessary for a successful climb (14).

For every challenge nature presents, there is a counter-strategy that can be employed (4). Those who do outdoor sports and outdoor sports instructors are involved in complex decision-making environments and there are multiple factors in this decision-making environment (16). Decision-making is a dynamic process in which individuals play an active role. People who have to make a decision have to satisfy their inner needs as well as meet the expectations of those around them. To accomplish this, individuals must utilize their personal and environmental resources effectively and competently (36). Decision-making is defined as being able to select actions among others that are needed to achieve a specific goal (31). According to Maddi (33), the quest for meaning characterized by the existential approach of psychology involves continuous decision-making processes. When making a decision, people are left to choose between pursuing a well-trodden path in light of past experiences or exploring new, uncharted territory. For leaders of outdoor sports, decision-making is considered one of the most important skills that a professional should have, as in many other areas. Decision-making in a natural setting is defined in literature as a common function of task characteristics and decision-maker's knowledge and expertise with respect to the task (16). Drury et al. (13) and Priest and Gass (27) regard the judgement and decision-making processes of leaders and instructors of outdoor sports as a rational process while Galloway (16) views it as decision-making processes in a natural setting (6).

study intends to demonstrate the impact of mental toughness of athletes doing outdoor sports on their decision-making skills. It's thought that the research will outdoor guide the leaders of outdoor sports and contribute to the development of mental skills. In this context, the following questions are tried to be answered. (10).

1. Do demographic variables affect decision making and mental endurance?
2. Is there a relation between mental endurance and decision making?
3. Is mental endurance significant in outdoor sports?
4. Is decision making skill is significant in outdoor sports?

MATERIAL AND METHOD

Method

Outdoor sports have been gaining popularity in Turkey through festivals, contests and organizations. Through these contests and festivals, performers of outdoor sports also find a chance to improve themselves. The study uses the survey collection technique, a quantitative research method.

Population and Sample

The study population is composed of outdoor athletes in Turkey while the study sample is made up of randomly selected performers of outdoor sports from the cities of Eskişehir, İstanbul, Konya, İzmir, Malatya, Mersin, Adana, Gaziantep, Kayseri, Antalya and Trabzon. It has been assumed that the cities chosen as the study's sample contain large numbers of outdoor sports performers. A total of 504 people (330 men, 174 women) were included in the study, 23.2% of whom do mountain climbing, 41.3% hiking, 6.5% paragliding, 2.2% caving, 11.9% mountain biking, 8.1% rock climbing and 6.7% other sorts of outdoor sports.

Data Collection Tool

In order to determine the mental toughness of individuals engaged in outdoor sports, the mental toughness in sports scale developed by Sheard et al. (29) and adapted to Turkish by Altıntaş and Bayar Koruç (1) was used and the Melbourne Decision Making Scale I-II Scale developed by

Mann et al. (35) and adapted to Turkish by Deniz (11) was used in order to examine the athletes' decision-making ability.

The mental toughness scale in sports consists of 3 sub-sets, which are: confidence, control and continuity. "Confidence" refers to belief in one's talents and seeing oneself above competitors to reach the target in challenging situations. "Continuity" means taking responsibility, concentrating, and not giving up to achieve the goals set (30), while "control" refers to keeping composure, maintaining calm and being comfortable in the face of pressure or unexpected situations (30). Confidence is made up of items 1, 5, 6, 11, 13, 14, continuity 3, 8, 10, 12 and control 2, 4, 7, 9 (29).

The Melbourne Decision-Making scale has two parts. Part 1 : aims to determine self-respect (self-confidence) in decision-making. It consists of 6 items in total, and the three items (2-4-6.) are scored reversely. The scoring is made on the basis of the answers "True" (2 points), "True in certain situations" (1 point) and "Not true" (0 points). The highest score on the scale is 12, and high scores indicate a high level of self-esteem when making decisions. Part II consists of 22 items and measures decision-making styles and has 4 sub-factors, which are Attentive, Evasive, Procrastinative and Panic Decision Making. High scores indicate that the relevant decision-making style is used (11). The items that measure the sub-sets of decision-making styles are items 2-4-6-8-12 and 16 for careful decision-making, items 3-9-11-14-17 and 19 for evasive decision-making, items 5-7-10 -18 and 21 for procrastinative decision-making and items 1-13- 15-20 and 22 for panic decision making. The lowest score for careful and evasive decision- making is 0, and the highest score is 12, and the lowest score is 0 and the highest score is 10 for procrastinative and panic decision-making (11).

Data Collection

Information such as the purpose of the research, how the questionnaire form is to be marked and what should be paid attention in marking and the name, surname and title of the person conducting the research and of the consultant and the name of the organization

where they work was given on top of the questionnaire forms used in the research. The scale was applied to outdoor sports athletes in 2017. The scale was applied by the researchers during climbing and in training camps on those who voluntarily participated in the research.

Reliability and Validity Analyses of Data Collection Tool

For general reliability, Cronbach's Alpha coefficient was calculated. The most common method used in the examination of reliability is Cronbach's Alpha coefficient. Significance was defined as $p < 0.05$ and $p < 0.01$. Reliability is a concept that includes the consistency and validity of all the questions and the homogeneity to measure the formation. The method improved to evaluate the reliability of the tests is defined as reliability analysis and the evaluation of the questions is entitled as question analysis. The most widely used method to determine the reliability is Cronbach's Alpha coefficient. Cronbach's Alpha is;

$0.60 \leq \alpha < 0.80$ scale is quite reliable

$0.80 \leq \alpha < 1.00$ scale is highly reliable

In our study, Cronbach's Alpha Value of the scale was calculated as 0.80 (mental toughness) and .79 (decision-making).

Data Analyses

The data collected in the study were analyzed using the statistical package program (SPSS 22.0), after which the results were interpreted. The data showed a normal and homogeneous distribution. The Independent samples t test was used when reviewing the relationship between data and demographic variables and comparing quantitative data between the groups. Kolmogorov-Smirnov and Shapiro-Wilk normality tests were performed in order to determine whether research data shows a normal distribution or not. It was given a look to Kurtosis-Skewness values for data sets that do show a normal distribution and it is assumed that data showed normal distribution because the values are between +1/-1. Where there were more than two groups, the One Way ANOVA test was used for comparison of parameters between groups. Correlation analysis was performed to measure the relationship between mental toughness and decision-making skills in sports.

Results

This study, the variables gender, age, educational status, marital status, the type of outdoor sport done and experience with outdoor

sports were examined and statistically significant differences were founded.

Table 1: Distribution of the mental toughness and decision-making values of the athletes by gender

		Gender	N	Mean	SD	t	p
Sports Mental Toughness	Confidence	Male	330	3.0571	.45725	5.495	.000*
		Female	174	2.8238	.44538		
	Constancy	Male	330	2.5894	.34369	.610	.542
		Female	174	2.5675	.40154		
	Control	Male	330	2.3818	.63075	-2.501	.013*
		Female	174	2.5330	.67253		
Decision Making	Self-confidence	Male	330	.9854	.22665	3.368	.001*
		Female	174	.9119	.24419		
	Careful Decision Making Style	Male	330	1.6253	.36934	-1.602	.110
		Female	174	1.6743	.30243		
	Avoidant Decision Making Style	Male	330	.6884	.41941	1.252	.211
		Female	174	.6379	.44994		
	Procrastination Decision Making Style	Male	330	.5848	.42464	-1.230	.219
		Female	174	.6345	.44197		
Panicky Decision Making Style	Male	330	.5915	.47367	-1.475	.141	
	Female	174	.6552	.43510			

When mental endurance and decision making skills are examined according to gender of outdoor athletes in Table 1, statistically significant differences have been found in trust, control and self-esteem dimensions. According to these results

men believe in their mental abilities and think that they are better than their opponents. Women are better at remaining calm, controlled and relaxed (30).

Table 2: Distribution of the mental toughness and decision-making values of the athletes by age

		Age	N	Mean	SD	F	P	Difference
Sports Mental Toughness	Confidence	18-21 age	232	2.8764	.46582	8.686	.000*	1-3. 1-4 5-1.
		22-25 age	124	2.9476	.46677			
		26-29 age	54	3.0895	.38813			
		30-33 age	11	3.0455	.21201			
		34-37 age	22	3.0530	.37581			
		38 age+	61	3.2760	.45122			
	Constancy	18-21 age	232	2.6250	.37725	7,755	.000*	2-3. 2-4
		22-25 age	124	2,6089	,35390			
		26-29 age	54	2,4537	,30357			
		30-33 age	11	2,2273	,30526			
		34-37 age	22	2,8068	,36131			
		38 age+	61	2,4590	,29290			
	Control	18-21 age	232	2,5938	,58164	17,800	.000*	1-3. 1-4
		22-25 age	124	2,5948	,56453			
		26-29 age	54	2,0880	,66616			

	Age Group	N	Mean (SD)		F	P	Post-hoc	
			Group 1	Group 2				
Decision Making	Self-confidence	30-33 age	11	1,7955	,67840	1.139	.338	2-5, 2-6
		34-37 age	22	2,1477	,73864			
		38 age+	61	2,0246	,61527			
	Careful Decision Making Style	18-21 age	232	.9346	.23192	3.846	.002*	1-2, 1-4 1-6, 5-4 5-6
		22-25 age	124	.9718	.26435			
		26-29 age	54	.9907	.15329			
		30-33 age	11	.9545	.21201			
		34-37 age	22	1.0000	.24125			
		38 age+	61	.9918	.24424			
	Avoidant Decision Making Style	18-21 age	232	1.6961	.28209	15.466	.000*	1-2, 1-3 1-4, 1-5 1-6, 2-3 2-6
		22-25 age	124	1.6035	.41352			
		26-29 age	54	1.6173	.27592			
		30-33 age	11	1.4545	.34230			
		34-37 age	22	1.7500	.37001			
		38 age+	61	1.5328	.43228			
	Procrastination Decision Making Style	18-21 age	232	.8211	.44729	3.113	.009*	1-3, 1-5 2-3, 2-5
		22-25 age	124	.6274	.43530			
		26-29 age	54	.4630	.39778			
		30-33 age	11	.7091	.38329			
		34-37 age	22	.4091	.33510			
		38 age+	61	.5410	.39723			
	Panicky Decision Making Style	18-21 age	232	.7517	.42160	15.770	.000*	1-2, 1-3 1-5, 1-6 2-3, 2-5 2-6, 4-3 4-5, 4-6
		22-25 age	124	.6323	.46004			
		26-29 age	54	.4333	.51943			
30-33 age		11	.7273	.28667				
34-37 age		22	.2273	.29790				
38 age+		61	.3279	.37244				

Group 1: 18-21 Group 2: 22-25 Group 3: 26-29 Group 4: 30-33 Group 5: 34-37 Group 6: 38 +

Outdoor athletes' mental endurance and decision making skills are examined in Table 2. There are statistically significant differences among in mental endurance's subcategories; trust, continuity and control. There are statistically significant differences among decision making subcategories; careful decision making style, avoidant decision making style, procrastination

decision making style and panicky decision making style. According to this, when age increases trust and continuity points increase as well. Youngsters have higher points for being controlled. In decision making, youngsters have more avoidant and panicky decision making style. 34-37 ages have more careful decision making style

Table 3. Distribution of the mental toughness and decision-making values of the athletes by the type of outdoor sports done

	The Type Of Outdoor Sports	N	Mean	SD	F	P	Fark	
								Sports Mental Toughness
Mountaineering	117	3.0385	.45401					
Paragliding	33	3.2424	.35865					
Hiking	208	2.9167	.48460					
Caving	11	3.1667	.38006					
Mountain bike	60	2.8944	.42182					
Other	34	2,8333	.40410					
Constancy	Rock climbing	41	2,5976	.42160	2.165	.045	1-7, 2-7 4-7, 5-6 5-7	
	Mountaineering	117	2,6346	.38358				
	Paragliding	33	2,5833	.35171				
	Hiking	208	2,5781	.35724				
	Caving	11	2,7727	.43952				

Decision Making	Control	Mountain bike	60	2,5333	.29640				
		Other	34	2,4265	.32292				
		Rock climbing	41	2.1402	.55071				
		Mountaineering	117	2.4359	.63581			1-2. 4-1	
		Paragliding	33	2.0985	.51135			6-1. 7-1	
		Hiking	208	2.5349	.68299	4.505	.000	2-1. 2-3	
		Caving	11	2.1136	.52872			4-3. 6-3	
		Mountain bike	60	2.4667	.63524			7-3. 4-5	
	Other	34	2.5368	.55777					
	Self-confidence	Rock climbing	41	.9309	.25813				
		Mountaineering	117	.9387	.23631				
		Paragliding	33	.9949	.16396				
		Hiking	208	.9663	.25101	.513	.799		
		Caving	11	.9848	.30235				
		Mountain bike	60	.9806	.20606				
	Careful Decision Making Style	Other	34	.9510	.19038				
		Rock climbing	41	1.6748	.33737				
		Mountaineering	117	1.6282	.32562				
		Paragliding	33	1.6566	.31988				
Hiking		208	1.6563	.35482	1.007	.420			
Caving		11	1.4848	.41133					
Avoidant Decision Making Style	Mountain bike	60	1.5833	.40303					
	Other	34	1.7059	.29030					
	Rock climbing	41	.6545	.43524					
	Mountaineering	117	.7393	.45664					
	Paragliding	33	.4798	.28185			2-3. 2-6		
	Hiking	208	.7115	.45325	3.601	.002	4-3. 7-3		
Procrastination Decision Making Style	Caving	11	.4848	.18936			4-6. 7-6		
	Mountain bike	60	.5222	.33819					
	Other	34	.7157	.40312					
	Rock climbing	41	.5756	.44090					
	Mountaineering	117	.6256	.46129					
	Paragliding	33	.4424	.34913					
Panicky Decision Making Style	Hiking	208	.6288	.45887	1.120	.349			
	Caving	11	.5273	.27236					
	Mountain bike	60	.5667	.34379					
	Other	34	.6294	.36889					
	Rock climbing	41	.5268	.39939					
	Mountaineering	117	.5436	.48555			4-2. 4-5		
Panicky Decision Making Style	Paragliding	33	.5758	.47106			6-5. 7-6		
	Hiking	208	.6731	.48638	2.285	.035	7-5		
	Caving	11	.3091	.24271					
	Mountain bike	60	.6433	.41349					
	Other	34	.6765	.33399					
Group 1: Rock climbing		Group 2: Mountain climbing		Group 3: Paragliding		Group 4: Hiking		Group 5: Caving	
Group 6: Mountain biking		Group 7: Other							

Mental endurance and decision making skills are examined according to the type of outdoor sports in Table 3. There are statistically significant differences among mental endurance substyles; trust, continuity and control. There are statistically significant differences among decision making subcategories; careful decision making style, avoidant decision making style, procrastination decision making style and panicky decision making style. According to this, in terms of mental

endurance, paragliders ($X=3.24$) believe in their ability and think that they are better than their opponents. Cavers ($X=2.77$) are better in taking responsibility and concentrating, hikers ($X=2.53$) are better to act calm under pressure or face with unexpected conditions. In decision making, while mountaineers have avoidant decision making style, hikers have panicky decision making style.

Table 4: Distribution of the mental toughness and decision-making values of the athletes by experience

		Experience	N	Mean	SD	F	P	Difference
Sports Mental Toughness	Confidence	1-3 year	307	2.9446	.43808	4.017	.008	4-1. 4-2
		4-7 year	118	2.9647	.56017			
		8-11 year	59	3.0650	.38658			
		12 year +	20	3.2750	.37179			
	Constancy	1-3 year	307	2.6034	.36840	10.547	.000	1-3. 1-4 2-3. 2-4
		4-7 year	118	2.6547	.37399			
		8-11 year	59	2.4237	.28713			
		12 year +	20	2.2875	.09159			
	Control	1-3 year	307	2.5529	.59909	18.285	.000	1-3. 1-4 2-3. 2-4
		4-7 year	118	2.4280	.72139			
		8-11 year	59	2.0212	.51963			
		12 year +	20	1.8625	.48310			
Decision Making	Self-confidence	1-3 year	307	.9636	.24558	.955	.414	
		4-7 year	118	.9322	.21817			
		8-11 year	59	.9831	.19002			
		12 year +	20	1.0000	.28613			
	Careful Decision Making Style	1-3 year	307	1.6477	.30947	5.346	.001	1-4. 2-4. 3-4
		4-7 year	118	1.6808	.41321			
		8-11 year	59	1.6356	.34943			
		12year+	20	1.3500	.37813			
	Avoidant Decision Making Style	1-3 year	307	.7389	.42963	16.321	.000	1-3. 1-4. 2-3
		4-7 year	118	.6864	.44024			
		8-11 year	59	.3446	.27831			
		12year+	20	.5000	.25363			
	Procrastination Decision Making Style	11-3 year	307	.6463	.42173	6.199	.000	1-3. 2-3
		4-7 year	118	.5966	.47139			
		8-11 year	59	.3864	.32348			
		12year+	20	.5900	.43274			
Panicky Decision Making Style	1-3 year	307	.7055	.47754	16.612	.000	1-2. 1-3. 1-4. 2-3. 2-4	
	4-7 year	118	.5695	.42537				
	8-11 year	59	.3458	.31695				
	12year+	20	.2500	.17014				

Group 1: 1-3 years Group 2: 4-7 years Group 3: 8-11 years Group 4: 12 year +

Mental endurance and decision making skills are examined according to experience in Table 4. There are statistically significant differences among mental endurance substyles; trust, continuity and control. There are statistically significant differences among decision making subcategories; careful decision making style, avoidant decision making style, procrastination decision making style and panicky decision making style. According to this, in terms of mental endurance, believing in abilities in tough times and to be better than opponents increase when experience increases (confidence).

Generally, continuity and control decreases when experience increases. 4-7 age athletes have more careful decision making style. Avoidant decision making, procrastination decision making and panicky decision making decrease when experience increases.

Table 5: Analysis of correlations between mental toughness and decision-making skills of the athletes

		Self-confidence	Decision Making	Mental Toughness
Self-confidence	r	1		
	P			
	N	504		
Decision Making	r	.106*	1	
	P	.017		
	N	504	504	
Mental Toughness	r	.298**	.206**	1
	P	.000	.000	
	N	504	504	504

There is meaningful relation between mental endurance and decision making skill in Table 5. There is a low positive relation between decision making and self-esteem [$r=.106$; $p<.05$]. There is a low positive relation between mental endurance

and decision making [$r=.206$; $p<.01$]. There is a low positive relation between mental endurance and self-esteem [$r=.298$; $p<.01$]. In general, it could be said that there is a relation between mental endurance decision making.

Discussion and Conclusion

This study intends to examine the impact of the mental toughness of athletes doing outdoor sports on their decision-making skills.

Spending time in nature is becoming a popular lifestyle in today's society. For this reason, it has become a necessity to produce a variety of programs, activities and projects in order to increase leisure time activities and expand their spectrum (23). In our study, the variables gender, age, educational status, marital status, the type of outdoor sport done and experience with outdoor sports were examined and statistically significant differences were found ($p < 0.05$).

Statistically significant differences were found in the subsets of mental toughness and self-confidence (Decision Making) by the gender variable (table 1). Besides, men have higher levels of self-esteem at decision making. The main reason men are more into physical activities is because men's body structure is more robust than that of women (22). It can be assumed that due to this physical advantage, men mentally display a more confident attitude towards outdoor sports, that is to say men rely on their physical strength. There are studies that support this conclusion (37). Besides, being calm and even-tempered may have to do with women's personality traits. According to our study, mental toughness displays itself in the form of confidence for men and self-control for women. Men, therefore, believe in their skills to reach targets in challenging situations and think they are better (30) than other athletes. Women, on the other hand, tend to remain calm under pressure or in the face of unexpected situations (30). Psychological skills help athletes maximize their physical skills (39). As regards decision-making skills, men make decisions with more self-confidence than women. The fact that men are more confident with their decisions in outdoor sports than women may be due to their spending more time doing outdoor sports. Using psychological skills is important for athletes who are engaged in high-risk sports (26).

Mental toughness is a concept with different impact dynamics that changes depending on the sports branch according to the general view (18). According to our study, mental toughness displays itself in the form of confidence for men and self-control for women in outdoor sports. As regards decision-making skills, men make decisions with more self-confidence.

Statistically significant differences were found in the subsets of mental toughness and decision-making by the age variable (table 2) ($p < .001$). In our study, as age increases in the subsets of confidence and continuity, so does mental toughness and as age decreases, control behaviors increase. In other words, as age increases, it can be said that the strength for reaching the targets in challenging circumstances, believing in one's talents, taking responsibility in line with the targets set, focusing, as well as the strength for fighting for an end increases. Young people, on the other hand, tend to remain calm under pressure or in the face of unexpected situations (30). Haran Larre (20) has found that two-thirds of accidents that occur during hiking affect people at the age of 50 and over. In such cases, progression of age constitutes a risk, and mental toughness gains more importance for the elderly. Decision-making is thought to have an important place in outdoor sports. In terms of decision-making, the results look more favorable for young people. Bull et al. (3) noted that good judgment impacts on coping under pressure. Decision-making skills have emerged as a more decisive trait for young people. This can be explained by the fact that young people are more enthusiastic and driven to prove themselves.

According to the type of outdoor sports done (Table 3), statistically significant results have been obtained in mental toughness and decision-making skills ($p < .001$). We have also found that of the outdoor sports studied, those who are engaged in paragliding, mountain

climbing, rock climbing and caving take more responsibility, have more of a fighting spirit and believe in their ability to reach their targets (29), while those who go hiking keep their calm under pressure or in the face of unexpected situations (29). It is thought to be an expected feature to be a fighter for those involved in sports such as rock climbing, paragliding and mountain climbing. Being mentally durable in these sports is particularly determinant to success. Inevitably dangerous high-risk sports are distinguished from traditional sports by the environment they are performed in (26). Nicholls et al. (37) did not find any significant differences in mental toughness by the kind of sports played. Fourie and Potgieter (15) examined mental toughness and its components and collected them under 12 headings. This includes mental toughness. Statistically significant results were found between evasive decision-making and panic decision-making. Accordingly, mountain climbers and hikers make more evasive decisions. Doing risky sports requires the ability to keep composure in stressful situations, to overcome difficulties, to cope with emotional and physical discomfort, to be decisive in tough conditions, and to be able to cope with frightening situations (39). These skills are also thought to have an impact on decision making. It is known that outdoor sports are risky sports. According to Galloway (16), decision-making is an important skill. Decision-making is especially important for those who guide large groups. Adventure sports guides should have the ability to reason effectively about the risk levels, the potential benefits of the situation and the possible consequences (5).

As experience has increased (table 4), the belief in mental toughness and abilities and the belief that one is better than his/her opponents have increased, and it has been seen that taking responsibility and concentrating and keeping composure in the face of challenging or unexpected situations, being in controlled and the sense of comfort decreased. According to these results, experience has an important influence on mental toughness. Increased experience in athletes is a behavior that affects their ability to believe in their abilities. This will lead to success at the end of a mental process. That kind of toughness will create the right decision making mechanism. According to some studies, more than one-third of the victims who suffered trauma as a result of an accident while doing outdoor sports had little or no experience in

mountain sports (20). Connaughton et al. (8) reported that competition-based experience was an important factor in the development of mental toughness for the athletes. In addition, mental toughness can be regarded as an important attribute when the difficulties of outdoor sports are considered. In one study, Nicholls et al. (37) found significant results with regard to mental toughness and the fighting spirit based on experience. According to our results, the more the experience, the more trust athletes have in their talents. This may be related to the fact that these athletes have gained valuable experiences following the accidents they have seen and experienced. According to our findings, as experience increases, evasive decision-making, deferential decision-making and panic decision-making decrease. This can be explained by the fact that outdoor sports require a sudden decision-making ability. Because there is uncertainty in outdoor sports, this uncertainty forces leaders or individuals to make sudden decisions. Negative experiences and confidence building result in attainment of goals. This will provide opportunities for personal development and enable learning of important lessons (9). According to the research, as the number of climbing increases, it develops in physical and psychological characteristics (40). Contrary to what was expected in our study, as experience increased, there was a decrease in the careful decision making sub-dimension.

This can be explained by the athletes taking no responsibility under difficult conditions. Being mentally strong and coping with challenges in nature helps achieve success (4). Decision-making in this process can have a positive impact on mental strength. According to Galloway (16), in emergencies, the rate of highly experienced leaders being influenced by the group decreases. Accordingly, having a high level of experience has an important impact on decision-making.

When Table 5 was examined, a positive correlation was seen between mental toughness, decision-making ability ($r = .206$, $p < .000$) and self-confidence ($r = .106$, $p < .017$). Accordingly, though not very much so, mental toughness affects decision-making and self-confidence positively. Making the right decisions increases the person's trust in

themselves. This also affects self-confidence. Draper et al. (12) concluded that stress affects rock climbing psychologically. This type of stressful situation can affect the mental toughness and the ability to make a decision to achieve a goal. In general, when looking at the profiles of mountain and nature athletes, it is seen that age, experience, and gender have an impact on accidents. People who are experienced and experts in their fields have been found to be exposed to more accidents (32). As a result, it can be said that as mental toughness increases, so do decision-making skills and confidence, that is to say. Decision making in outdoor athletes is an important skill (19).

Conclusion

Mental toughness has an important influence on outdoor sports. It has a direct influence on reaching

the target. Decision-making also emerges as a critical skill when it is thought that outdoor sports are carried out under difficult conditions and the risk of accidents is high. In general, demographic variables influence mental toughness and decision-making. It should be noted that decision-making ability increases as mental toughness increases. Accordingly, decision-making becomes more important for sportsmen, especially those who lead crowded groups. The right decisions will make the group feel safe. It is suggested that individuals at every age, gender should be steered to do outdoor sports, places and stage for outdoor sports. In addition, relaxation exercises can be performed.

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