

Investigation of emotional intelligence and mental resistance levels of skiing running athletes according to education level and different variables

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ABSTRACT

This study aimed to analyze emotional intelligence and mental resistance levels of the national cross country skiing running athletes according to education level and different variables in Turkey in terms of different variables. In the research, general survey model which is one of the survey models was used. Population of the research, i.e. sample of cross country skiing running athletes in Turkey consists of 56 athletes, of which 21 are female, 35 are male, and their average age is 18 years. In determining demographic variables of athletes, personal information form created by the researchers, "Sports Mental Resistance Questionnaire (SMTQ)" to measure mental resistance levels, "Emotional Intelligence Scale for use in Sport (EISS)" to measure emotional intelligence levels, were used. All of the data obtained were analyzed in SPSS 21 package program and significance level of data was taken as $p < 0.05$. According to the findings obtained from the research, significant relation was determined in favor of female athletes in continuity sub-dimension which is one of mental resistance sub-dimensions according to gender variable, in favor of athletes aged 19 and older in utilizations of emotions sub-dimension which is one of emotional intelligence sub-dimensions according to age variable, in favor of university students in evaluating feelings of others, evaluating feelings of themselves, regulating emotions and utilizations of emotions sub-dimensions which are emotional intelligence sub-dimensions according to the educational status variable. It was found that there was a significant relation in favor of athletes doing sports for 6 to 8 years when compared to athletes doing sports for 5 years and less according to year of doing sports variable in continuity which is mental resistance sub-dimension and evaluating feelings of themselves which is emotional intelligence sub-dimension. In comparison of emotional intelligence sub-dimension levels of athletes according to recreational activity variable, significant difference is seen relating to the fact that emotional intelligence levels of those listening to music and reading book are lower than those watching movie in evaluating feelings of themselves sub-dimension, emotional intelligence levels of those listening to music are lower than those watching movie in regulating emotions sub-dimension, emotional intelligence levels of those listening to music are lower than those participating in sportive activities and watching movie in social skills sub-dimension. When other sub-dimensions were examined, it was determined that there was no significant difference. Consequently, it was seen that there was a significant difference between national cross country skiing athletes in Turkey according to gender and year of doing sports variables in terms of mental resistance levels; according to age, educational status, year of doing sports and recreational activity variables in terms of emotional intelligence levels.

Keywords: Cross country skiing running, emotional intelligence, mental resistance, national athlete.

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INTRODUCTION

Human is whole cognitively, emotionally, physically and socially as a biological, psychological and social entity.

Sportive performance, which is one of the actions that people take physically, can reach the desired level by

combining these four basic factors and planning and implementing the necessary works (Erdoğan and Kocaekşi, 2015). Athletes make an effort to achieve or sustain their success in both physically and psychologically intense competitive sports environment. Along with the extra effort spent, mental resistance and emotional intelligence of athletes are needs to be strong for performance (Brenner, 2007). Technical, tactical and physical capacities of athletes which are at the peak, may not be enough for sports performance alone, psychological capacity of the athlete should be as strong as technical, tactical and physical capacities. Athletes who cannot control, regulate sudden and uncontrolled changes emotionally and cognitively in training or competitions and who have less adaptability to new situations, may not achieve the desired success due to psychological factors although they are ready in terms of physical capacity (Orhan 2018). As a psychological factor, emotional intelligence is the ability of an individual to monitor his own and other's emotions, to discriminate among them and to use the knowledge, thoughts and behaviors acquired from this process (Salovey and Mayer, 1990), to activate himself, to proceed on his way despite problems, to postpone satisfaction by controlling impulses, to regulate his mood, not to let troubles prevent him from thinking, to put himself in the shoes of others (Goleman, 1995). Emotional intelligence in sports can be defined as being able to motivate himself, to control emotions (against teammates, opponents, referees, coaches and managers) to use his emotions positively and to control stress (Adiloğullari, 2011). Emotional intelligence allows us to know and evaluate ourselves and others, to actively reflect the information about our emotions and the feeling of our emotions into our daily life and the work we do and to react appropriately to them. In this direction, if an individual can achieve the results he wants in every field of life and can use his emotions logically, he can be described as "emotionally intelligent" (Yeşilyaprak, 2001). Another factor which is psychologically effective on athletes is mental resistance. Mental resistance can be described as being able to think positively under stress, to use motivation correctly, not to lose faith and to keep concentration at important focus points (Jones and Moorhouse, 2007), and can be called one's self-recovery ability in cases such as setbacks, failures, conflicts and increased responsibilities causing negativity and positive psychological capacity that can be developed to come full circle (Luthans, 2002). Mental resistance in sports is the ability to stay focused in situations that create pressure, to cope with such situations, to be competitive, determined, self-motivated against difficult situations, to resist them, not to lose self-belief even after failures (Crust and Clough, 2011), to focus better than competitors, to have self-control under pressure, not to lose self-confidence (Jones et al., 2002). It is related to mental resistance whether the athlete's capacity will be effectively reflected on performance and

whether capacity can resist destructive forces (Karageorghis and Terry, 2015).

The importance and necessity of emotional intelligence and mental resistance which distinguish athletes having the same conditions, which are reflected on their performances positively or negatively and which have great importance for athletes, cannot be denied in the most challenging sports branch requiring struggle and resistance such as cross country skiing running.

It first appeared in Siberia, Mongolia and Altai as a result of people's struggle to survive in the nature and entry of which is as old as the history of humanity, into human life as a sports branch dates back to mid-19th century. Cross country skiing which is one of the skiing branches, was initially used as a means of transportation and carrying in Scandinavian countries, then cross country skiing which took the form of a competition, is a type of competition which is performed in bumpy and flat (rough) fields and causes a lot of energy consumption. Cross country skiing which is safe but the most difficult one when compared to other skiing branches, requires individuals who are engaged in it to be emotionally and mentally strong since it is performed in physically severe conditions (<https://www.tkf.org.tr/>).

In this context, aim of the study is to research mental resistance and emotional intelligence levels of the national cross country skiing running athletes in Turkey in terms of different variables.

METHOD

In the research, general survey model, which is one of the survey models, was used. Survey model is "a survey arrangements made on all universe or on a group, example or sample to be obtained from the universe with the aim of making a general judgment about the universe in a universe consisting of a large number of elements" (Karasar, 2015).

Population of the study, i.e. sample of cross country skiing running athletes in Turkey consists of 56 athletes, of which 21 are female, 35 are male.

A personal information form which was created by the researchers and consists of 8 questions was used in order to determine demographic characteristics of the athletes. 5-point Likert-type Emotional Intelligence Scale consisting of 5 sub-dimensions, adapted for athlete population by Lane et al. (2009) and for Turkish athlete population by Adiloğullari and Görgülü (2015), based on emotional intelligence scale developed by Shutte et al. (1998), was used in order to measure emotional intelligence skills of athletes.

4-point Likert-type Sports Mental Resistance Questionnaire consisting of 14 items and 3 sub-dimensions, developed by Sheard et al. (2009) and adapted to Turkish by Altıntaş (2015), was used in order to determine mental resistance levels of the athletes.

RESULTS

As shown in Table 1, when normality distribution test results were examined, confidence, control and continuity sub-dimensions which are mental resistance sub-dimensions were examined and these statistical analysis results obtained show that data distributed normally and parametric tests should be applied.

As shown in Table 2, when normality distribution test results were examined, evaluating feelings of others, evaluating feelings of themselves, regulating emotions, social skills and utilizations of emotions sub-dimensions which are emotional intelligence scale sub-dimensions were examined and these statistical analysis results obtained show that data distributed normally and parametric tests should be applied. (Table 3)

When mental resistance level sub-dimensions of male and female athletes were examined, after t test conducted, it was found that there was no significant relation in confidence and control sub-dimensions at $p < .050$ significance level and there was significant relation in continuity sub-dimension ($t=2.054-p=.045$). According to this result, continuity levels of female athletes ($x=10.9048$) are higher than continuity levels of male athletes ($x=10.2000$) (Table 4a).

After t test conducted to compare emotional intelligence level sub-dimensions of male and female athletes, it was found that there was no significant difference in sub-dimensions when $p < .050$ significance level was considered (Table 4b).

When mental resistance level sub-dimensions of athletes were examined, after t test conducted, it was found that there was no significant relation in confidence, control and continuity sub-dimensions at $p < .050$ significance level (Table 5a).

After t test conducted to compare emotional intelligence level sub-dimensions of athletes, it was found that there was significant difference in favor of athletes aged 19 and older in utilizations of emotions sub-dimension which is among the sub-dimensions when $p < .050$ significance level was considered (Table 5b). When other sub-dimensions were examined, it was determined that there was no significant difference.

When mental resistance level sub-dimensions of athletes were examined, after t test conducted, it was found that there was no significant relation in confidence, control and continuity sub-dimensions at $p < .050$ significance level (Table 6a).

After t test conducted to compare emotional intelligence level sub-dimensions of athletes, it was found that there was significant difference in favor of university students in evaluating feelings of others, evaluating feelings of themselves, regulating emotions and utilizations of emotions sub-dimensions when $p < .050$ significance level was considered (Table 6b).

After one way analysis of variance (Anova) test conducted to compare mental resistance sub-dimensions

levels of athletes according to the year of doing sports, there is a significant difference in favor of athletes who have been doing sports for 6 to 8 years in continuity sub-dimension at $p < .050$ significance level (Table 7a). When other sub-dimensions were examined, it was determined that there was no significant difference.

After one way analysis of variance (Anova) test conducted to compare emotional intelligence sub-dimensions levels of athletes according to the year of doing sports, there is a significant difference in favor of athletes who have been doing sports for 6 to 8 years in evaluating feelings of themselves sub-dimension at $p < .050$ significance level (Table 7b). When other sub-dimensions were examined, it was determined that there was no significant difference.

After one way analysis of variance (Anova) test conducted to compare mental resistance sub-dimensions levels of athletes according to recreational activity, there is no significant relation in confidence, control and continuity sub-dimensions at $p < .050$ significance level (Table 8a).

One way analysis of variance (Anova) test was conducted in comparison of emotional intelligence sub-dimension levels of athletes according to recreational activity variable (Table 8b). Significant difference is seen relating to the fact that emotional intelligence levels of those listening to music and reading book are lower than those watching movie in evaluating feelings of themselves sub-dimension, emotional intelligence levels of those listening to music are lower than those watching movie in regulating emotions sub-dimension, emotional intelligence levels of those listening to music are lower than those participating in sportive activities and watching movie in social skills sub-dimension. When other sub-dimensions were examined, it was determined that there was no significant difference.

DISCUSSION AND CONCLUSION

This study was conducted in order to analyze mental resistance and emotional intelligence levels of the national cross country running skiing running athletes in terms of some variables.

It was determined that there was no significant difference in emotional intelligence sub-dimensions of athletes according to gender variable, but there was a significant difference in continuity sub-dimension which is one of mental resistance sub-dimensions. It was also seen that continuity levels of female athletes was higher than continuity levels of male athletes. In a similar study conducted by Yazıcı (2016) on 198 players, of which 63 were female, 135 were male and consisting of 17 professional basketball teams, there was no significant difference in emotional intelligence sub-dimensions, but a significant relation was found in favor of female players in mental resistance, continuity sub-dimension. Related

Table 1. Mental resistance scale normality distribution test results.

	Confidence	Control	Continuity
N	56	56	56
Mean	17.3393	10.6071	10.4643
Median	17.0000	11.0000	10.0000
Std. Deviation	2.48835	2.43220	1.27870
Skewness	.154	.014	.082
Std. Error of Skewness	.319	.319	.319
Kurtosis	.364	-.716	-.606
Std. Error of Kurtosis	.628	.628	.628
Minimum	12.00	5.00	8.00
Maximum	24.00	15.00	13.00

Table 2. Emotional intelligence scale normality distribution test results.

	Evaluating feelings of others	Evaluating feelings of themselves	Regulating emotions	Social skills	Utilizations of emotions
N	56	56	56	56	56
Mean	16.6607	11.9286	7.5714	10.5357	22.1964
Median	17.0000	12.0000	8.0000	11.0000	23.0000
Std. Deviation	2.61657	1.99870	1.77720	2.29596	3.72422
Skewness	-.587	-1.103	-.968	-.178	-1.288
Std. Error of Skewness	.319	.319	.319	.319	.319
Kurtosis	1.705	2.740	1.270	-.255	2.573
Std. Error of Kurtosis	.628	.628	.628	.628	.628
Minimum	8.00	5.00	2.00	5.00	10.00
Maximum	24.00	15.00	10.00	15.00	29.00

Table 3. Demographic variables.

Variables	N	%	
Gender	Female	21	37.5
	Male	35	62.5
	Total	56	100.0
Age	Younger than 18 years	29	51.8
	Older than 19 years	27	48.2
Educational Level	Secondary Education	31	55.4
	University	25	44.6
For how many years have you been engaged in cross country skiing running	Less than 5 years	14	25.0
	Between 6-8 years	27	48.2
	More than 9 years	15	26.8
How do you make use of your spare time	Reading book	19	33.9
	Sportive activity	15	26.8
	Listening to music	12	21.4
	Watching movie	10	17.9

Table 4a. Results of independent group t test conducted to determine whether scores of sub-dimensions of mental resistance scale differentiate according to gender variable of athletes or not.

Mental resistance sub-dimensions	Gender	N	X	Ss	T	p
Confidence	Female	21	16.6190	2.31249	-1.707	.094
	Male	35	17.7714	2.52150		
Control	Female	21	11.3810	2.39742	1.887	.065
	Male	35	10.1429	2.36572		
Continuity	Female	21	10.9048	1.37495	2.054	.045
	Male	35	10.2000	1.15809		

Table 4b. Results of independent group t test conducted to determine whether scores of emotional intelligence scale differentiate according to gender variable of athletes or not.

Emotional intelligence sub-dimensions	Gender	N	X	Ss	t	p
Evaluating feelings of others	Female	21	16.9048	3.44826	.537	.593
	Male	35	16.5143	2.00545		
Evaluating feelings of themselves	Female	21	12.1429	2.24245	.618	.539
	Male	35	11.8000	1.85979		
Regulating emotions	Female	21	7.2857	2.12468	-.931	.356
	Male	35	7.7429	1.54049		
Social skills	Female	21	10.2857	2.39046	-.628	.533
	Male	35	10.6857	2.25925		
Utilizations of emotions	Female	21	21.9048	4.20600	-.451	.654
	Male	35	22.3714	3.45633		

Table 5a. Results of independent group t test conducted to determine whether scores of sub-dimensions of mental resistance scale differentiate according to age variable of athletes or not.

Mental resistance sub-dimensions	Age	N	X	Ss	t	p
Confidence	Younger than 18 years	29	17.1379	2.26344	-.624	.535
	Older than 19 years	27	17.5556	2.73627		
Control	Younger than 18 years	29	10.6552	2.64947	.152	.880
	Older than 19 years	27	10.5556	2.22457		
Continuity	Younger than 18 years	29	10.4138	1.29607	-.304	.763
	Older than 19 years	27	10.5185	1.28214		

study results are parallel with our results. Also, in a study conducted by Yalız (2013) on 107 students studying in physical education and sports teaching department in the first, second, third and fourth years, of which 49 were female and 58 were male, there was no significant difference in emotional intelligence sub-dimensions according to gender variable. Unlike this research, in a

study conducted by Kayhan et al. (2018) on a total of 155 athletes, of which 64 were female and 91 were male, 60 were engaged in individual sports and 95 were engaged in team sports, there was no significant difference in mental resistance sub-dimensions according to gender variable.

There was significant difference in favor of athletes

Table 5b. Results of independent group t test conducted to determine whether scores of emotional intelligence scale differentiate according to age variable of athletes or not.

Emotional intelligence sub-dimensions	Age	N	X	Ss	t	p
Evaluating feelings of others	Younger than 18 years	29	16.4828	3.05451	-.524	.602
	Older than 19 years	27	16.8519	2.08850		
Evaluating feelings of themselves	Younger than 18 years	29	11.4483	1.86291	-1.901	.063
	Older than 19 years	27	12.4444	2.04438		
Regulating emotions	Younger than 18 years	29	7.2414	1.72493	-1.453	.152
	Older than 19 years	27	7.9259	1.79585		
Social skills	Younger than 18 years	29	10.7241	2.50566	.633	.529
	Older than 19 years	27	10.3333	2.07550		
Utilizations of emotions	Younger than 18 years	29	21.1724	3.74232	-2.206	.032
	Older than 19 years	27	23.2963	3.43975		

Table 6a. Results of independent group t test conducted to determine whether scores of sub-dimensions of mental resistance scale differentiate according to educational status variable of athletes or not

Mental resistance sub-dimensions	Educational status	N	X	Ss	t	p
Confidence	Secondary education	31	17.0968	2.18105	-.810	.422
	University	25	17.6400	2.84136		
Control	Secondary education	31	10.5806	2.46000	-.090	.929
	University	25	10.6400	2.44745		
Continuity	Secondary education	31	10.4516	1.28682	-.082	.935
	University	25	10.4800	1.29486		

Table 6b. Results of independent group t test conducted to determine whether scores of emotional intelligence scale differentiate according to educational status variable of athletes or not.

Emotional intelligence sub-dimensions	Educational status	N	X	Ss	t	p
Evaluating feelings of others	Secondary education	31	16.0645	3.09769	-2.070	.044
	University	25	17.4000	1.63299		
Evaluating feelings of themselves	Secondary education	31	11.2903	2.25379	-2.825	.007
	University	25	12.7200	1.27541		
Regulating emotions	Secondary education	31	6.8710	1.89283	-3.630	.001
	University	25	8.4400	1.15758		
Social skills	Secondary education	31	10.6129	2.53873	.278	.782
	University	25	10.4400	2.00167		
Utilizations of emotions	Secondary education	31	21.0645	4.19472	-2.670	.010
	University	25	23.6000	2.46644		

Table 7a. Results of one way analysis of variance (Anova) conducted to determine whether scores of sub-dimensions of mental resistance scale differentiate according to athletes' year of doing sports variable or not.

Mental resistance sub-dimensions	Year of doing sports	N	X	Ss	t	P	Difference
Confidence	Less than 5 years	14	17.5000	1.55662	.219	.550
	Between 6-8 years	27	17.1111	3.01705			
	More than 9 years	15	17.6000	2.22967			
	Total	56	17.3393	2.48835			
Control	Less than 5 years	14	9.6429	2.34052	1.640	.076
	Between 6-8 years	27	11.0741	2.55593			
	More than 9 years	15	10.6667	2.16025			
	Total	56	10.6071	2.43220			
Continuity	Less than 5 years	14	9.7857	1,18831	2.869	.023	1<2
	Between 6-8 years	27	10.7407	1.16330			
	More than 9 years	15	10.6000	1.40408			
	Total	56	10.4643	1.27870			

Table 7b. Results of one way analysis of variance (Anova) conducted to determine whether scores of sub-dimensions of emotional intelligence scale differentiate according to athletes' year of doing sports variable or not.

Emotional intelligence sub-dimensions	Year of doing sports	N	X	Ss	f	P	Difference
Evaluating feelings of others	Less than 5 years	14	16.0000	3.30501	.597	.291
	Between 6-8 years	27	16.9259	2.35218			
	More than 9 years	15	16.8000	2.42605			
	Total	56	16.6607	2.61657			
Evaluating feelings of themselves	Less than 5 years	14	10.6429	1.82323	4.823	.003	1<2
	Between 6-8 years	27	12.5556	1.60128			
	More than 9 years	15	12.0000	2.32993			
	Total	56	11.9286	1.99870			
Regulating emotions	Less than 5 years	14	7.0000	1.96116	.998	.170
	Between 6-8 years	27	7.8148	1.44214			
	More than 9 years	15	7.6667	2.12692			
	Total	56	7.5714	1.77720			
Social skills	Less than 5 years	14	10.3571	2.53004	.393	.415
	Between 6-8 years	27	10.8148	2.27084			
	More than 9 years	15	10.2000	2.21037			
	Total	56	10.5357	2.29596			
Utilizations of emotions	Less than 5 years	14	20.7143	4.63147	1.528	.095
	Between 6-8 years	27	22.7778	2.85998			
	More than 9 years	15	22.5333	4.05087			
	Total	56	22.1964	3.72422			

aged 19 and older in utilizations of emotions sub-dimension which is one of emotional intelligence sub-dimensions according to the age variable, but there was

no significant difference in mental resistance level sub-dimensions. In a similar study conducted by Adiloğullari (2011) on 401 professional football players who played

Table 8a. Results of one way analysis of variance (Anova) conducted to determine whether scores of sub-dimensions of mental resistance scale differentiate according to athletes' recreational activity variable or not.

Mental resistance sub-dimensions	How do you make use of your spare time	N	X	Ss	f	P
Confidence	Reading book	19	16.6316	2.16565	.940	.120
	Sportive activity	15	17.4000	2.50143		
	Listening to music	12	18.0833	1.62135		
	Watching movie	10	17.7000	3.68330		
	Total	56	17.3393	2.48835		
Control	Reading book	19	10.4211	2.31699	1.172	.075
	Sportive activity	15	10.6000	2.26148		
	Listening to music	12	9.9167	2.15146		
	Watching movie	10	11.8000	3.08401		
	Total	56	10.6071	2.43220		
Continuity	Reading book	19	10.2105	1.18223	1.137	.080
	Sportive activity	15	10.3333	1.29099		
	Listening to music	12	10.5000	1.31426		
	Watching movie	10	11.1000	1.37032		
	Total	56	10.4643	1.27870		

Table 8b. Results of one way analysis of variance (Anova) conducted to determine whether scores of sub-dimensions of emotional intelligence scale differentiate according to athletes' recreational activity variable or not.

Emotional intelligence sub-dimensions	How do you make use of your spare time	N	X	Ss	f	P	Difference
Evaluating feelings of others	Reading book	19	16.2105	2.43992	1.073	.125
	Sportive activity	15	16.9333	1.70992			
	Listening to music	12	16.0833	3.87201			
	Watching movie	10	17.8000	2.14994			
	Total	56	16.6607	2.61657			
Evaluating feelings of themselves	Reading book	19	11.4737	2.01021	2.079	.027	1<4
	Sportive activity	15	12.0667	1.86956			
	Listening to music	12	11.4167	2,31432			
	Watching movie	10	13.2000	1.31656			
	Total	56	11.9286	1.99870			
Regulating emotions	Reading book	19	7.6316	1.77045	1.886	.034	3<4
	Sportive activity	15	7.8667	1.45733			
	Listening to music	12	6.5833	2.19331			
	Watching movie	10	8.2000	1.39841			
	Total	56	7.5714	1.77720			
Social skills	Reading book	19	10.3684	1.64014	2.338	.027	3<2
	Sportive activity	15	11.2000	2.48424			
	Listening to music	12	9.2500	2.52713			
	Watching movie	10	11.4000	2.36643			
	Total	56	10.5357	2.29596			
Utilizations of emotions	Reading book	19	21.1579	3.86240	1.808	.069
	Sportive activity	15	23.2000	3.14416			
	Listening to music	12	21.2500	4.26668			
	Watching movie	10	23.8000	3.04777			
	Total	56	22.1964	3.72422			

active football in the 2009-2010 football season, it was found that age variable of football players in age group 20 to 23 years were significantly lower than that of football players in age group 28 to 31 years. In the study conducted in 2002 on a total of 150 athletes consisting of professional football players from Mediterranean region and Central Anatolia region, Serdengeçti (2003) shows that emotional intelligence levels of football players aged 32 and older are higher than emotional intelligence levels of football players in age group 28-31 and younger. Again, the study conducted by Kayhan et al. (2018) is parallel with this study by determining that there is no statistically significant difference between age variables of the athletes and scores that athletes got from mental resistance scale.

There was a significant difference in favor of university students in evaluating feelings of others, evaluating feelings of themselves, regulating emotions and utilizations of emotions sub-dimensions which are emotional intelligence sub-dimensions, but there was no significant relation in mental resistance sub-dimensions. In a similar study conducted by Özdayi and Yoncalık (2017) on 554 elite athletes, of which 263 are female and 291 are male, it is understood that those who have a bachelor's degree have high emotional intelligence. This study conducted supports our study, but in another study conducted for mental resistance by Yıldız (2017) on 315 athletes doing sports actively, of whom 71 were female, 244 were male, there was a significant difference in mental resistance levels of athletes according to their educational status variable.

There are significant differences in favor of athletes who have been doing sports for 6 to 8 years in evaluating feelings of themselves sub-dimension which is one of emotional intelligence sub-dimensions and in continuity sub-dimension which is one of mental resistance sub-dimensions according to year of doing sports variable. Unlike this research, in the study conducted with elite athletes, Özdayi and Yoncalık (2017) showed that there was no significant difference in emotional intelligence levels according to duration of doing sports. In a study conducted by Güvendi et al. (2018) on 118 male professional wrestlers, there was a significant difference in favor of those who were engaged in wrestling for 1 to 5 years in continuity sub-dimension of mental resistance scale according to year of doing sports. According to this, it was seen that average mental resistance continuity scores of players doing sports for 5 years and more were higher than those doing this sport for 6-10 years. While this study supports our study by showing a significant difference in continuity sub-dimension which is one of mental resistance sub-dimensions, the fact that it shows significant difference in favor of wrestlers doing sports for 1 to 5 years does not show parallelism with our study.

In emotional intelligence sub-dimension levels of athletes according to recreational activity variable, significant difference is seen relating to the fact that

emotional intelligence levels of those listening to music and reading book are lower than those watching movie in evaluating feelings of themselves sub-dimension, emotional intelligence levels of those listening to music are lower than those watching movie in regulating emotions sub-dimension, emotional intelligence levels of those listening to music are lower than those participating in sportive activities and watching movie in social skills sub-dimension. There was no significant difference in mental resistance sub-dimensions.

Consequently, it was seen that there was a significant difference between national cross country skiing running athletes in Turkey according to gender and year of doing sports variables in terms of mental resistance levels; according to age, educational status, year of doing sports and recreational activity variables in terms of emotional intelligence levels.

REFERENCES

- Adiloğulları, İ. (2011).** Profesyonel Futbolcularda Duygusal Zekâ ile Örgütsel Bağlılık İlişkisi. Marmara Üniversitesi. Sağlık Bilimleri Enstitüsü. İstanbul.
- Adiloğulları, İ., Görgülü, R. (2015).** Sporda Duygusal Zekâ Envanteri'nin Uyarlama Çalışması. Uluslararası Spor, Egzersiz ve Antrenman Bilimi Dergisi.
- Brenner, J. S. (2007).** Overuse injuries, overtraining, and burnout in child and adolescent athletes. *Pediatrics*, 119(6): 1242-1245.
- Crust, L., and Clough, P. J. (2011).** Developing mental resistance: From research to practice. *Journal of Sport Psychology in Action*, 2(1): 21-32.
- Erdoğan, N., and Kocaekşi, S. (2015).** Psychological features that elite athletes should have: Review. *Turkey Clinical Journal of Sports Sciences*, 7(2): 57-64.
- Goleman, D. (1995).** Duygusal Zekâ, (Çev. Banu Seçkin Yüksel), Varlık Yayınları Sayı: 852. 2 Yirmi Dokuzuncu Basım.
- Güvendi, B., Türksoy, A., Güçlü, M., and Konte, E. (2018).** Investigation of courage levels and mental resilience of professional wrestlers. *International Journal of Sports Exercise and Training Science*, 2: 70–78.
- Jones, G., and Moorhouse A. (2007).** Developing Mental Resistance Gold Medal Strategies for Transforming your Business Performance. Oxford, UK: Spring Hill.
- Jones, G., Hanton, S., and Connaughton, D. (2002).** What is this thing called mental resistance? An investigation of elite sport performers. *Journal of Applied Sport Psychology*, 14(3): 205-218.
- Karageorghis, I. C., and Terry, P. C. (2015).** Spor Psikolojisi. Çevirmen: Adnan Çadır, Erdal Demir, Nobel Akademik Yayıncılık.
- Karasar, N. (2015).** Bilimsel Araştırma Yöntemi. Nobel Akademik Yayıncılık. Ankara.
- Kayhan, R. F., Hacicaferoğlu, S., Aydoğan, H., and Erdemir, İ. (2018).** Takım ve bireysel sporlar ile ilgilenen sporcuların zihinsel dayanıklılık durumlarının incelenmesi. *Sportif Bakış: Spor ve Eğitim Bilimleri Dergisi*, 5(2): 55-64.
- Luthans, F. (2002).** Positive organizational behavior: Developing and managing psychological strengths. *Academy of Management Executive*, 16(1): 57-72.
- Orhan, S. Y. (2018).** Bireysel Sporcular ve Takım Sporcularında Duygusal Zekâ ve Zihinsel Dayanıklılık İlişkisi. Yüksek Lisans Tezi. Marmara Üniversitesi. Sağlık Bilimleri Enstitüsü. İstanbul.
- Özdayi, N., and Yoncalık, O. (2017).** Elit sporcuların duygusal zekâ düzeylerinin bazı değişkenler açısından incelenmesi. *Diyalektolog ulusal sosyal bilimler dergisi kış winter*, 16: 85-98.
- Salovey, P., and Mayer, J. D. (1990).** Emotional Intelligence. *Imagination, Cognition and Personality*.
- Serdengeçti, C. (2003).** I.II. III. Ligdeki profesyonel futbolcuların

duygusal zekâ düzeylerinin başarıya etkisi, Selçuk Üniversitesi Sağlık Bilimleri Enstitüsü Yüksek Lisans Tezi, Konya.

Yalız, D. (2013). Investigation of emotional intelligence levels of Anadolu University Physical Education and Sports Teaching Department students. Pamukkale Journal of Sport Sciences, 4(2): 94-111.

Yazıcı, A. (2016). Profesyonel Basketbol Oyuncularında Zihinsel Dayanıklılık ve Duygusal Zekânın Çeşitli Değişkenler Açısından İncelenmesi. Yüksek Lisans Tezi Kasım.

Yeşilyaprak, B. (2001). Kuram Ve Uygulamada Eğitim Yönetimi Duygusal Zekâ Ve Eğitim Açısından Doğurguları. Gazi Üniversitesi, Mesleki Eğitim Fakültesi, Eğitim Bilimleri Bölümü.

Yıldız, A. B. (2017). Sporcularda zihinsel dayanıklılık ve öz yeterlik düzeyleri arasındaki ilişkinin incelenmesi. Ankara Yıldırım Beyazıt Üniversitesi Sağlık Bilimleri Enstitüsü Yüksek Lisans Tezi.

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