The Role of Locus of Control and Motivation in Determining the Achievement Goal Model in Turkish National Sailing Athletes: Preliminary Study

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Abstract

Individuals dealing with sailing, which is an outdoor sport, need to focus on the target with determination and be motivated while struggling with the wind, waves, currents, and opponents. The locus of control is accepted as an element that can predict success in sports where such complex mental processes are used. In addition, athletes' orientation towards performance and learning, and their critical perspective are also known as factors determining success and failure. In this study, it was aimed to test whether the locus of control and motivation styles of national sailing athletes determine their success orientation or not. The analogous sampling method, one of the purposeful sampling methods, was used in determining the participants, and the study was carried out with a correlational design. The study included 79 (24 Female, 55 Male) Turkish national athletes ($\bar{X}$=20.58±5.46), aged 16-35, competing in Laser (Standard, Radial, 4.7), 470, 420, Finn, Windsurfing branches. The following scales were used in the study :"Achievement Goal Model", "Sport Motivatiob Scale II" and "The Rotter Locus of Control Scale". According to the results, we found that the determinants of learning-approach goal orientation were locus of control, introjected regulation and amotivation, while the determinants of learning-avoidance goal orientation were identified regulation and extrinsic regulation. As a result, the achievement goals and motivation style of the participants are in interaction and it is thought that determining the locus of control and aspects of motivation are important to understand the athlete's achievement goal orientation.

Keywords: Sailing, Elite Athlete, Locus of Control, Motivation, Achievement Goal Orientation

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Türk Milli Yelken Sporcularında Başarı Hedef Modelinin Belirlenmesinde Kontrol Odağı ve Motivasyonun Rolü: Ön Çalışma

Öz

Bir doğa sporu olan Yelken ile uğraşan bireyler, rüzgar, dalga, akıntı ve rakiple mücadele ederken kararlılıkla hedefe odaklanma ve güdülenmeye ihtiyaç duymaktadırlar. Kontrol odağı ise böyle karmaşık zihinsel süreçlerin kullanıldığı branşlarda, başarıyı öngörebilecek bir öğe olarak kabul edilmektedir. Bunun yanı sıra sporcuların performans ve öğrenmeye olan yönelimleri ve kendilerine dönük eleştirel bakış açıları da başarı ve başarısızlığı belirleyen faktörler olarak bilinmektedir. Çalışmada milli yelken sporcularının kontrol odağı ve güdülenme biçimlerinin başarı yönelimlerini belirleyip belirlemediğini test etmek amaçlanmıştır. Katılımcıların belirlenmesinde, amaçlı örnekleme yöntemlerinden benzeşik örnekleme yöntemi kullanılmış ve çalışma ilişkisel tarama deseniyle gerçekleştirilmiştir. Araştırmaya Laser (Standard, Radial, 4.7), 470, 420, Finn, Rüzgar Sörfü branşlarında yarışan 16-35 yaş arası ($\bar{X}$=20.58±5.46), 79 (24 Kadın 55 Erkek) Türk milli sporcu katılmıştır. Katılımcılara "Rotter İç-Dış Kontrol Odağı Ölçeği", "Sporda Güdülenme Ölçeği II" ve "2x2 Başarı Yönelimleri Ölçeği (Revize Formu)" uygulanmıştır. Verilerin analizinde, pearson korelasyon ve çoklu hiyerarşik regresyon analizleri kullanılmıştır. Elde edilen sonuçlara göre, öğrenme-yaklaşma hedef yöneliminin belirleyicilerinin kontrol odağı, içe atımla düzenleme ve güdülenmeme olduğu, öğrenme-kaçınma hedef yöneliminin belirleyicilerinin ise özdeşimle düzenleme ve dışsal düzenleme olduğu bulunmuştur. Sonuç olarak, katılımcıların başarı hedefleri ve motivasyon stilleri etkileşim halindedir ve kontrol odağının ve motivasyonun yönlerinin belirlenmesinin sporcunun başarı hedef yönelimini anlamada önemli olduğu düşünülmektedir.

Anahtar Kelimeler: Yelken, Elit Sporcu, Kontrol Odağı, Motivasyon, Başarı Hedefine Yönelik

Introduction

Today, the number of athletes dealing with sailing increases, and they compete in many international arenas due to Turkey's having different seas, its geopolitical position, and wind diversity. As sailboat classes that have been registered in Turkey Sailing Federation; there are Laser, 470, Finn, RS: X in the Olympic category and Optimist, 420, Pirat, Techno293, Dragon, Yacht, and Radio Controlled Yacht classes in the non-Olympic category (TYF, 2022). Regardless of the class in which the athlete competes, being able to make tactical and strategic guidance against external forces at sea is considered the golden key to success (Castagna and Brisswalter, 2007). In recent years, many different conceptual models have been developed on achievement goals and achievement motivation in the field of educational sciences (Elliot and Murayama, 2008; Elliot and McGregor, 2001). In the literature of sports sciences, the concept of achieving goals is also encountered in different dimensions (Duda and White, 1992, Lochbaum et al., 2017; Miletić et al.,2017). Achievement goals, which are basically dimensioned as "learning" and "performance" orientations, are valuable in terms of examining what kind of meaning people attach to learning and keeping them up-to-date (Akın and Arslan, 2014). Individuals who adopt the learning orientation strive to improve their abilities, may make mistakes, but see this as a natural process or opportunity and do not give up, they are interested in learning and innovation. Individuals who adopt the performance orientation focus on proving their talent to others and getting better results than them. They are more concerned with comparisons and avoid performing when there is a failure (Harackiewicz et al., 2000). It is known that individuals who have achieved success by going through difficult struggles in sailing sport races with high motivation for days without losing their motivation (Henriksen et al., 2010). The driving force that activates the organism and determines the energy level of the behavior is defined as motivation (Clancy, Herring and Campbell, 2017). Taking action towards the goal with these driving forces coming from within the individual defines it as motivation (Javaid and Sahar, 2018). Among the measurement tools that are frequently used in research on the motivation of athletes is the Sports Motivation Scale. It is the Self Determination Theory that primarily mentions the different dimensions that individuals provide motivation by regulating their behavior, and this theory consists of three sub-dimensions: intrinsic motivation, external motivation, and amotivated (Ryan and Patrick, 2009). Later, six different motivation and behavior regulation styles were developed from the theory. These dimensions of motivation are listed as internal regulation, integrated regulation, regulation by identification, regulation by introjection, external regulation, and amotivation. This ranking is from the most autonomous to the least autonomous, and the amotivation dimension means lack of motivation (Öcal and Sakallı, 2018). When the athlete is motivated internally, she is not interested in external incentives, pressures, or rewards and can take action to challenge himself/herself of his/her own

accord. Importing refers to oppressive threat or reward from other dimensions; Identification refers to being a part of the individual's self (Yildiz et al., 2019). In this context, it is important to know the personality traits of the athlete not only with the opponent but also with nature and to know the mechanisms that control himself. In addition to individual and team competitions, it is seen that athletes attribute the results of the events and situations they experience to themselves or external factors, depending on their focus on internal or external control. The concept of locus of control explains whether individuals attribute the cause or control of events to themselves or to the external environment (Kirdök and Harman, 2018). Thus, believing in the power to change the results, or letting go, behavior occurs and can affect success in sailing races that last for days (Olmedilla et al., 2015). In the light of all this information, the study aimed at supporting an elite sailor to develop his/her psychology positively in the harsh conditions of the sea, the role of the locus of control and motivation styles of athletes in determining their success orientation was examined. When we look at the literature, there are almost no studies on the psychological characteristics and skills of individuals who are interested in branches that are both nature and water sports, such as sailing (Limone et al, 2021, Valenzano et al, 2020). The data obtained from the study will help both trainers and athletes to gain awareness of their psychological characteristics, especially for performance groups.

Methodology

Starting the study, the researchers interviewed with TYF. Information about the camp dates and permission to study were obtained. Then, the ethics committee application of the study was made. After the approval of the ethics committee, interviews were held with the athletes who participated in the National Sailing Team camp in February 2022. Athletes who volunteered to participate in the study completed the scales after signing the consent form.

Participants

The participants of the study consist of the national athletes compete under Turkey Sailing Federation (N=79). 24 of the participants are women and 55 of them are men. The average age of the participants is 20.58±5.46. Participants were examined in 2 groups: 18 years and under (n:34) and 19 years and above (n:45).Participants were examined in 3 groups: windsurfing (n:22), individual sailing (n:33), and team sailing (n:24). The average sports age of the participants was 11.43±5.37 and in the study, it was examined in 2 groups as 10 years and below (n:41) and 11 years and above (n:38). All data in this study were collected in accordance with the ethical standards of the Helsinki Declaration. The study was approved by local ethics board in Turkey (Protocol number:220015 Decision no:23).

Measure tools

The Locus of Control Scale (LCS)

LCS was developed by Rotter (1966), and adapted into Turkish by Dağ (1991). This scale consists of 29 items and each item includes two options in the mandatory elective response type. Six items were placed as fillers to hide the purpose of the scale, and the externality options of the other 23 items are evaluated with 1 point each. Thus, the scale scores range from 0 to 23 points, and a higher score indicates an increase in external locus of control. Test-retest reliability coefficient of LCS is .83. The reliability coefficient of the scale calculated with the KR-20 technique was found to be .68, and the Cronbach's alpha internal consistency coefficient was found to be .71. While evaluating the scale, those who score between 0 and 10 were considered as internally supervised and 11 points and above externally supervised.

2x2 Achievement Goal Questionnaire (AGQ)

AGQ was developed by Elliot and Murayama (2008) and adapted into Turkish by Arslan & Akın, (2015). The internal consistency reliability coefficients of the scale, which consists of 12 items and 4 sub-dimensions, were .72 for the learning-approach orientation sub-dimension, and. 68 for the performance-approach orientation sub-dimension. 62 and .69 for the performance-avoidance orientation sub-dimension.

Sport Motivation Scale-II (SMS-II)

Yildiz, et al., (2019) revised the 16-item Turkish version of the Sports Motivation Scale-II, which was developed by Pelletier et al., (2013), consisting of 18 items and 6 sub-dimensions. Internal consistency values of the scale were calculated as Internal regulation 0.55, Integrated regulation 0.68, regulation by Identification 0.75, Introjected regulation 0.44, External regulation 0.73, and amotivated 0.75.

Data Analysis

Descriptive statistics and multiple hierarchical regression analysis were used to analyze the data obtained in our study. Before analyzing the data, descriptive statistics such as arithmetic mean, mode, median, skewness and kurtosis coefficients were made to determine whether the data set provided normal distribution. The fact that the arithmetic mean, mode and media obtained in the analyzes are equal or close indicates that the data provide a normal distribution (Vincent & Weir, 2014).

Results

Descriptive statistics of the study are shown in Table 1.

Table 1

Descriptive Statistics of the Variables Considered in the Study

Measure Tools	N	Min	Max	Mod	Median	x̄	ss	Skewness	Kurtosis
Locus of control	79	0 (3)	23 (22)	12	12	11.05	4.13	.191	-.730
Learning Approach	79	1(3)	7	5	4.66	4.67	.855	.559	.917
Learning Avoidance	79	1	7(5)	3	3	3.37	.889	.533	-.243
Performance Approach	79	1	7 (6.67)	5	4.66	4.44	.936	-.545	1.847
Performance Avoidance	79	1	7 (6.67)	5	4.66	4.18	1.14	-1.212	1.145
Intrinsic reg.	79	2.5	7	7	6.50	5.89	1.27	-1.068	.262
Integrated reg.	79	3	7	7	6.33	6.17	.891	-1.442	2.271
Identified reg.	79	2.33	7	7	6.33	6.06	1.19	-1.696	2.301
Introjected reg.	79	4	7	7	6.50	6.09	.858	-.645	-.581
External reg.	79	1	4	1	1.33	1.56	.763	1.472	1.586
Amotivated	79	1	4.67	1	1.33	1.84	1.04	1.288	.689

The findings of the multiple regression analysis performed to determine the role of locus of control and motivation sub-dimensions in predicting learning approach and learning-avoidance sub-dimensions are presented in Table 2. In order to determine the variables that predict the approach to learning sub-dimension of locus of control and motivation, age in the first step, locus of control in the second step, and the scores of the perceived motivation sub-dimensions in the third step were entered.

Table 2

Hierarchical Regression Analysis Findings Regarding the Role of Locus of Control and Motivation Sub-dimensions in Predicting Learning Approach and Learning Avoidance

MODEL L-Approach	β	t	p	R	R²	Adj R2	F	MODEL L-Avoidance	β	t	p	R	R²	Adj R2	F
Model 1								**Model 1**							
Age	.091	.708	.481	.155	.024	-.029	.457	Age	.072	.567	.572	.206	.042	-.009	.819
Sport exp	.026	.203	.840					Sport exp	.090	.702	.485				
Gender	.082	.673	.503					Gender	-.133	-1.095	.277				
Spor type	.029	.243	.809					Spor type	-.107	-.907	.367				
Model 2								**Model 2**							
Age	.084	.670	.505	.299	.090	.027	1.437	Age	.075	.591	.556	.233	.054	-.010	.840
Sport exp	.026	.209	.835					Sport exp	.090	.702	.485				
Gender	.209	1.593	.115					Gender	-.187	-1.398	.166				
Spor type	.054	.461	.646					Spor type	-.118	-.991	.325				
Locus of control	.289	2.291	.025					Locus of control	-.123	-.961	.339				
Model 3								**Model 3**							
Age	-.120	-1.041	.302					Age	-.001	-.006	.995				
Sport exp	.113	.980	.331					Sport exp	.166	1.348	.182				
Gender	.149	1.231	.223	.614	.377	.274	3.681	Gender	-.129	-.998	.322	.543	.295	.179	2.550
Spor type	.091	.822	.414					Spor type	-.066	-.555	.580				
Locus of control	.180	1.529	.131					Locus of control	-.247	-1.973	.053				
Intrinsic reg.	.115	.948	.347					Intrinsic reg.	-.080	-.618	.539				
Integrated reg.	-.089	-.679	.500					Integrated reg.	-.271	-1.943	.056				
Identified reg.	.068	.545	.588					Identified reg.	.513	3.872	.000				
Introjected reg.	.431	3.378	.001					Introjected reg.	-.016	-.115	.908				
External reg.	-.068	-.545	.588					External reg.	.305	2.289	.025				
Amotivated	.348	3.172	.002					Amotivated	.145	1.243	.218				

For learning approach: The original contribution of age, gender, sports experience and type of sport included in the model in the first step is not meaningful in the model. (R= 0,15; R2 =0,24; Adjusted (Adj) R2 = 0,02; F=,46; p>0,05). The original contribution of the locus of control included in the model in the second step is significant within the model (R= 0,29; R2 =0,90; Adj R2 = 0,027; F= 1,44; p<0,05) and its contribution to the explanation of learning approach sub-dimension is % 2.7. The original contribution of subdimensions of motivation, which are included in the model in the third step, are significant in the model. (R= 0,61; R2 =0,37; Adj R2 = 0,27; F= 3,68; p<0,05) and its contribution to the explanation of learning approach sub-dimension is % 27. The regression analysis data obtained were determined that the locus of control (β=0,28, p<0,05) included in the model in the second step and the sub-dimensions of regulation with introjected (β=0,43, p<0,05) and amotivation (β=0,34, p<0,05) included in the model in the third step predicted the learning approach sub-dimension. For learning avoidance: The age, gender, sports experience and type of sport included in the model in the first step and the original contribution of the locus of control included in the model in the second step are not significant in the model. The original contribution of subdimensions of motivation, which are included in the model in the third step, are significant within the model (R= 0,54; R2 =0,29; Adj R2 = 0,17; F= 2,55; p<0,05) and its contribution to the explanation of learning avoidance sub-dimension is %17. It was determined that the obtained regression analysis data predicted the learning avoidance sub-dimension of the regulation by identification (β=0,51, p<0,05) and external regulation (β=0,30, p<0,05) sub-dimensions, which were included in the model in the third step. The findings of the multiple regression analysis performed to determine the role of locus of control and motivation sub-dimensions in predicting performance approach and performance -avoidance sub-dimensions are presented in Table 3. In order to determine the variables that predict the approach to learning sub-dimension of locus of control and motivation, age in the first step, locus of control in the second step, and the scores of the perceived motivation sub-dimensions in the third step were entered.

Tablo 3

Hierarchical Regression Analysis Findings Regarding the Role of Locus of Control and Motivation Sub-dimensions in Predicting Performance Approach and Performance Avoidance

MODEL P-Approach	β	t	p	R	R²	Adj R2	F	MODEL P-Avoidance	β	t	p	R	R²	Adj R2	F
Model 1				.251	.063	.013	1.247	**Model 1**				.137	.019	-.034	.351
Age	,182	1,446	,152					Age	,081	,628	,532				
Sport exp	-	-	,081					Sport exp	-	-,618	,539				
Gender	,225	1,770	,517					Gender	,081	-,802	,425				
Spor type	-	-,652	,749					Spor type	-	-,080	,936				
	,078	-,322							,099						
	-								-						
	,038								,010						
Model 2				.254	.065	.000	1.007	**Model 2**				.181	.033	-.034	.494

	β	t	p	R	R²	Adj R²	F		β	t	p	R	R²	Adj R²	F
Age	,181	1,429	,157					Age	,077	,601	,549				
Sport exp	-	-	,083					Sport exp	-	-,618	,538				
Gender	,225	1,759	,655					Gender	,081	-,294	,770				
Spor type	-	-,449	,774					Spor type	-	,016	,988				
Locus of control	,060	-,288	,743					Locus of control	,040	1,030	,306				
	- ,034	,330							,002	,134					
	,042														
Model 3				.667	.445	.353	4.877	**Model 3**				.715	.512	.431	6.379
Age	,014	,129	,898					Age	-	-,431	,668				
Sport exp	-	-,705	,483					Sport exp	,044	-,854	,396				
Gender	,077	,177	,860					Gender	-	-,249	,804				
Spor type	,020	,837	,406					Spor type	,088	,455	,651				
Locus of cnt	,088	-,123	,903					Locus of cnt	-	-,624	,535				
Intrinsic reg.	- ,014	4,177	,000					Intrinsic reg.	,027		,060				
Integrated reg.	,479	1,642	,105					Integrated reg.	,045	1,910	,001				
Identified reg.	,204	1,098	,276					Identified reg.	- ,065	3,459	,000				
Introjected reg.	,129	-,713	,478					Introjected reg.	- ,205	4,684	,836				
External reg.	- ,086	1,402	,165					External Amotivated	,402 ,517	-,208	,438				
Amotivated	,166 ,309	2.983	,004						- ,023 ,086 ,354	,780 3,637	,001				

For performance approach: The age, gender, sports experience and type of sport included in the model in the first step and the original contribution of the locus of control included in the model in the second step are not meaningful in the model. The original contribution of subdimensions of motivation, which are included in the model in the third step, are significant within the model (R= 066; R2 =0,44; Adj R2 = 0,35; F= 4,87; p<0,05) and its contribution to the explanation of performance approach sub-dimension is %35. It was determined that the regression analysis data obtained from the internal regulation (β=0,47, p<0,05) and amotivation (β=0,30, p<0,05) sub-dimensions, which were included in the model in the third step, predicted the performance approach sub-dimension. For performance avoidance: The age, gender, sports experience and type of sport included in the model in the first step and the original contribution of the locus of control included in the model in the second step are not meaningful in the model. The original contribution of subdimensions of motivation, which are included in the model in the third step, are significant within the model (R= 0,71; R2 =0,51; Adj R2 = 0,43; F= 6,37; p<0,05) and its contribution to the explanation of performance avoidance sub-dimension is %43. It was determined that the regression analysis data obtained from the integrated regulation (β=0,40, p<0,05), regulation by identification (β=0,51, p<0,05) and amotivation (β=0,35, p<0,05) sub-dimensions, which were included in the model in the third step, predicted the performance avoidance sub-dimension.

Discussion

In the study, analyzes were made regarding the role of locus of control and motivation in the prediction of learning-approach, learning-avoidance, performance-approach and performance-avoidance which are the sub-dimensions of achievement goal orientation.

The overall locus of control score of the participants was calculated as 11.05±4.13. It can be said that the study group is closer to the internal locus of control, since the scores of 12 and above obtained from the scale evaluation indicate an increase in the belief in external locus of control. This result can be explained by the fact that the athletes are interested in an individual sport. People who are interested in individual sports may be more inclined to blame themselves for any event, success or failure they experience, compared to people who are interested in team sports. At this point, it is expected that the participantas will be closer to the internal locus of control. When the literature is examined, it is seen that the locus of control scores of the athletes are similar to our study (Chugh et al., 2012;Filipiak and Lubianka, 2020; Kleiber and Hemmer,1981;Watson, 2016).

When the average scores of the participants from the achievement goal orientation subscales were examined, it was determined that the learning-approach orientation had the highest average score. Learning goal orientation explains individuals' efforts to fully understand the information they receive in the learning process and their desire to master the subject areas (Arslan and Akın, 2015). Learning-approach goal orientation, on the other hand, can be defined as individuals' further development of desired results through their own efforts. In the light of all this information, the high average score of learning-approach orientation can be explained by the fact that the participant group consists of people who have reached the elite level in the sport they are interested in. When the literature is examined, it is seen that the task approach scores of the athletes, which are evaluated in the same sense as the learning approach, coincide with our study results (Chin et al, 2012; Jaakkola et al.,2016).

The scores of the participants in the motivation scale in sports are as follows: internal regulation 5.89±1.27, integrated regulation 6.17±0.89, identified regulation 6.06±1.19, introjected regulation 6.09±0.85, external regulation 1.56±0.76, amotivation 1.33± 1.04. When the average scores of the participants from the subscales of motivation in sports are examined, it is seen that integrated regulation has the highest average score, and amotivation has the lowest average score. At this point, it can be said that the participants derive their general motivational resources from the process of self-actualization and integration. Because when the individual becomes autonomous while being motivated, he moves towards internal motivation and integrates with the targeted behavioral arrangements (Smohai, et.al, 2021). When the athlete is motivated internally and integrally, he can deal with himself, not with external reward, punishment, pressure and other elements (Roberts, Nerstad, and Lemyre, 2018). Thus, it can distance itself from a dimension that leads to inactivity such as lack of motivation. This result obtained from the research can be explained by the fact that the athletes are both individual and elite level competitors. There are similar studies showing that the amotivation sub-dimension is low in athletes (Chin et al, 2012; Kolayiş et al, 2015;

Menegassi et al, 2018; Ruffault et al, 2020; Sukys et al, 2019). There are also studies that overlap with our study showing that athletes get the highest score in the integrated regulation sub-dimension (Ruffault et al.,2020; Sukys et al.,2019).

The determinants of learning-approach goal orientation were found to be locus of control, introjected regulation and amotivation dimensions. Learning-approach goal orientation refers to the effort of individuals to master and develop against their responsibilities (Leenknecht et al.,2019). In this case, the athlete is expected to try to learn all aspects of technical, tactical, training, nutrition information related to his/her branch, to internalize what he/she does and to learn as much as possible. Locus of control, on the other hand, is divided into two as internal and external locus of control, and the higher the scores the individuals get from the scale, the more external control-oriented the individual (Bang et al., 2019).The fact that athletes are focused on internal control makes them feel in control over their lives and provides them the belief of being able to change what happens to them. Their being focused on external control explains that they are ruled by external forces and do not feel self-control since they approach in a more submissive way to the events (Holden, Forester, Williford, and Reilly, 2019). At this point, it is an unexpected result that the locus of control predicts the learning-approach goal orientation where individuals do not perceive any external element as a threat but only focus on their own skills. Because the increasing score in the locus of control scale causes an increase in approach to learning behaviour. It is recommended to examine this result with mixed-pattern studies in which broader and qualitative research methods are also used. Filipiak, & Łubianka (2020) also emphasized in their study that locus of control and personality traits are related to success and failure situations in athletes.

In the study, other determinants of learning-approach goal orientation were found to be introjected regulation and amotivation sub-dimensions. Introjected regulation refers to demands that put pressure on behaviour by supporting a behaviour with any threat, anxiety, shame, or reward. Amotivation explains the inability to establish a connection between the results of their actions, and the situation of not being motivated internally or externally. Considering that individuals who have a high tendency to demonstrate mastery skill for a purpose by internalizing the learning-approach goal orientation, we can talk about the pressure of a reward that enables them to be motivated for that purpose or the fact that they act away from stress without thinking about anything without knowing why they are training. Matos et al. (2017) examined whether only learning goal orientation or multiple goal orientation was effective in optimal motivation and reached conclusions that conflict with our study.

In another model of the study, determinants of learning-avoidance goal orientation were found to be identified regulation and external regulation. In this context, the learning-avoidance goal orientation (Schweder et al., 2019), which explains the individuals' avoidance of not achieving the desired performance or not being perfect, is supported by the external motivation that includes all of the materially or morally valuable tools and reinforcements. In addition, identified regulation, which is one of the types of external motivation, also expresses the participation of the activity for external reasons but voluntarily by considering it important, thus it supports the person to try not to lose his skills, abilities, or knowledge.

In the analyses conducted within the scope of the research, determinants of performance-approach goal orientation were determined as intrinsic regulation and amotivation sub-dimensions. Performance-approach orientation, which supports goals based on others, reflects the fact that athletes find themselves successful when they beat their opponents(Van Yperen, Blaga, and Postmes, 2014). Performance-approach goal orientation, which describes working to be better than other individuals and comparing oneself with others, is thought to be predicted by internal impulses such as curiosity, the need for competence, and the desire to develop. This may explain why performance-approach orientation is predicted by intrinsic regulation. Kaptan and Akyüz (2020), in their study in which they examined the relationship between the success goals and sports characters of football players, stated that the sports character traits such as justice, sportsmanship and honesty decreased in the athletes who adopted the performance-approach orientation. In this context, considering the relationship between performance-approach orientation and intrinsic regulation, it is important to give appropriate guidance to athletes from an early age. These behaviors may have caused the athletes to be amotivated because they only focus on the opponent. In addition, it can be thought of as the loss of motivation caused by the fact that the sport type that the research group is interested in is a nature sport and not being able to get the desired result due to natural conditions, although sometimes everything is okay in competitions. In addition, considering that they exhibit more superficial behavior, it is interesting that athletes who try to know that they are better than others are supported by the amotivated state where they sometimes become sedentary and aimless.

In the last model of the study, the determinants of performance-avoidance goal orientation were found to be integrated regulation, identified regulation, and amotivation sub-dimensions. It can be said that individuals who aim to avoid appearing unsuccessful and making mistakes avoid exhibiting their performance in order to prevent others from seeing them as inadequate, and this situation is predicted by amotivated, which expresses inactivity. In addition, the fact that individuals dealing with an integrated and identification-regulating activity, which is one of the types of external motivation, consider it important and harmonize it with their own body, can be explained by the fact

that the person is not seen as incompetent in his field and does not want to embarrass himself. Baba Kaya, Namlı, and Tekkurşun Demir, (2018) in their study in which they examined the relationship between sports science students' athletic identities and success orientations, stated that students with strong athlete identities had higher performance-avoidance levels. At this point, it can be thought that individuals who avoid experiencing negative feelings such as shame due to failure have a stronger athlete identity.

According to the findings obtained from the study, it can be said that achievement goals and motivation style in athletes are in interaction, and determining the locus of control and motivation will be effective in order to understand the learning or performance approaches of the athlete.

Ethics Committee Permission Information

Ethical evaluation: The study was approved by local ethics board in Turkey

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Authors' contributions

The processes related to the method and findings part of the research were carried out by the first author, the processes related to the introduction part were carried out by the second author, and the processes related to the discussion and conclusion part were carried out by the third author.

Conflicts of interest

The authors declare that they have no competing interests.

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