



RESEARCH ARTICLE

## Examination of the Relationship Between The Children's Version of the Perception of Success Questionnaire and Coaching Behavior Scale for Sports on 14-18 Years Old Swimmers: Aegean Region Example

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### Abstract

The aim of this study to examine the relationship between the perception of success and coaching behavior of 14-18 age swimming athletes living in Aegean region. A total of 114 swimmers participated voluntarily. The "Children's Version of the Perception of Success Questionnaire" (POSQ-CH) and "Coach Behavior Scale for Sport" (CBS-S) was used. The analysis of the data was evaluated with the SPSS. POSQ-CH score was 49.03 (very high); sub-dimensions, "Ego Orientation" (EO) score is 22.17 (high) and the "Task Orientation" (TO) score is 26.85 (very high). CBS-S score is 262.35 (quite high); sub-dimensions scores are between 23.43 (very low)-50.95 (very high). According to gender, a significant difference in POSQ-CH and GO sub-dimension and TS, PR and NR sub-dimension scores of CBS-S ( $p<0.05$ ). Similarly, a significant difference in the EO sub-dimension according to coach gender, in the POSQ-CH and GO according to swimming style and in the EO and TS according to sport age ( $p<0.05$ ). No correlation between POSQ-CH and CBS-S and its sub-dimensions; however, a positive and moderate relationship between the closeness to team captain score and CBS-S. It was determined that the swimmers in the relevant age range had high perception of achievement and perception of coach behavior, and the athletes were more goal-oriented. It can be said that the coach's physical-mental preparation, positive behavior, providing technical skill learning, directing the athlete correctly in terms of goal expectation, helping to provide appropriate and optimum competition strategy and negative behavior are not related to the swimmers' perception of success.

### Keywords

Coaching behavior, Perception of success, Young swimmer

## INTRODUCTION

The concept of success is explained as the achievement of an object, position or social status that individuals want to reach a point that is considered important in their lives, in line with the targeted time and planning (Secer, 2013). Duda and White (1992), who were influenced by the ability theory, reported that there are two main orientations, ego and task, in achieving goals and

motivation for success in sport. According to these two approaches, an athlete with a task orientation aims to demonstrate his/her talent and mastery, to improve himself/herself, to master the skill, and to be competent; he/she sees competitions as an opportunity to demonstrate and improve his/her talent (Ekinci and Koc, 2020). On the other hand, an athlete with ego orientation, wants to be the best (Karabulut, 2010) and cares about being

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superior to others in the process based on social comparison (Ekinici and Koc, 2020).

Sport represents an important area of success for children and adolescents (Treasure, 2001). Especially young athletes' perceptions and approaches to success may change according to their social environment or the attitudes or guidance of individuals they look up to (Ozgun et al., 2017). Since coach behaviors play a critical role in the development of the skills necessary for the motivation and performance of the athlete, it can be said that the perception of success in athletes is also related to coach behavior style and leadership styles (Cengiz et al., 2019).

Athletes, expect people other than themselves to give them feedback on their performance, pat them on the back or congratulate them on their sporting achievements, and they want to strengthen their motivation levels with this feedback (Ramalu, 2007; Ramalu et al., 2020). In a related study conducted by William and Straub (1998) with university students, it was shown that 80% of athletes' performance is influenced by mental skills. However, Sheard and Golby (2006), who studied national level swimmers for seven weeks, reported that psychological skills practices caused large and significant psychological improvements in athletes. Therefore, coaches need to be attentive and careful in giving feedback in order to contribute to both the physiological and psychological development of the athlete. Related to the topic, according to the results of the study conducted by Trigueros and Aguilar-Paraa (2019) on the impact of psychological and motivational practice needs in sport on the athlete, there is a need to improve performance in training based on the athlete's success. Realizing this, coaches started to pay attention to the motivational (psychological) aspects of goal orientation in order to improve athletic performance (Karim, 2016).

The coach is recognized as the architect of the motivational climate (Treasure, 2001). It has been reported that if the coach creates a climate that emphasizes the learning process, skill development and personal growth, then athletes are more likely to be goal-oriented individuals; on the other hand, if the coach creates a climate that emphasizes interpersonal competition or ego, then athletes are more likely to be ego-oriented individuals (Solstad and Lemyre, 2014; Jowett, 2017a). It is stated that for a good relationship between coach and athlete, skills, experience and

interests should be used interactively together; for such an interaction, the coach and athlete should not only have regular, high-quality communication (Davis et al., 2019), but also trust, goodwill and mutual sharing (Jowett, 2017a, 2017b; Jowett and Poczwadowski, 2007; Lorimer and Jowett, 2013).

As in all sports branches, the concept of "success" in swimming, which is an individual sport branch, can be considered as a concept that motivates athletes the most. Achieving success depends on good communication between the coach and the athlete. In this context, the relationship between athletes' communication with their coaches and their perceptions of success is of interest. For this reason, the present study was conducted to reveal the perceptions of success of young individuals engaged in swimming and to examine the relationship between coach behaviors and perceptions of success. Considering that internal emotions such as psychological warfare, anxiety, stress, worry, anxiety, confidence, self-confidence affect sportive performance in swimming, which is an individual sport, it is thought that determining the factors affecting the perception of success will be guiding in terms of psychologically focusing on success in directing the inner drives of young swimmers to achieve success.

## MATERIALS AND METHODS

### *Research Model*

In this study, the relational survey model was used since it was conducted to determine whether there is a relationship between two or more variables (Karasar, 2012).

### *Research Group*

A total of 114 licensed male and female athletes aged 14-18 years living in Izmir, Manisa, Mugla, Denizli in the Aegean region participated in the study voluntarily. Participants, who were between the ages of 14 and 18, engaged in swimming, had a license for at least one year and participated in competitions, lived in the Aegean region, had no health problems and were volunteers were included in the research. Participants who were not between the ages of 14 and 18, did not live in the Aegean region, were not involved in swimming sports, did not have a license for at least one year and did not participate in

sample size should be at least 76 people with a medium effect size, 0.05 significance level and 0.85 power in relationship analysis.

### **Data Collection**

Scale items and personal information form questions were prepared online. Participants and their parents were informed about the study and the forms were administered in the athletes' free time.

#### **Personal Information Form (PIF)**

A "Personal Information Form" consisting of 18 questions prepared by the researchers was applied to learn the personal information of the athletes participating in the study, such as gender, age, sport age, coach gender, coach style, etc.

### **The Children's Version of the Perception of Success Questionnaire (POSQ-CH)**

The scale developed by Roberts, Treasure, and Balague (1998) consists of 12 items, six of which are task orientation and six of which are ego orientation, on a 5-point Likert scale. The Turkish validity and reliability study of the scale was conducted by Kazak Cetinkalp (2006). The scale has two sub-dimensions, namely "Goal Orientation-GO" and "Ego Orientation-EO". Since the scale has 12 items and a 5-point Likert scale, a minimum of 12 points and a maximum of 60 points can be obtained in total. Accordingly, the scoring for the scale is 0-12 (very low), 13-24 (low), 25-36 (medium), 37-48 (high), 49-60 (very high); since the sub-dimensions EO and GO consist of six items each, the scoring for each sub-dimension is 0-6 (very low), 7-12 (low), 13-18 (medium), 19-24 (high), 25-30 (very high).

### **Coach Behavior Scale for Sport (CBS-S)**

The scale, originally developed by Côté et al. (1999), was adapted into Turkish by Yapar and Ince (2014). The original scale consists of 47 items and 7 sub-dimensions; physical training and planning (PTP), technical skills teaching (TS), mental preparation (MP), goal setting (GS), competition strategies (CS), positive rapport (PR) and negative rapport (NR). High scores in the first six sub-dimensions of the scale and low scores in the last sub-dimension indicate that the coach exhibits positive behavior (Yapar and Ince, 2014).

In the scale, 0-47 points (very low), 48-94 (quite low), 95-141 (low), 142-188 (medium), 189-235 (high), 236-282 (quite high), 283-329 (very high); sub-dimensions were evaluated according to 7-point Likert scale depending on the number of items.

### **Data Analysis**

The data were analyzed using SPSS 25 package program. Whether the data were normally distributed was analyzed by Kolmogorov-Smirnov, Shapiro Wilk tests and skewness and kurtosis values and descriptive statistics were made. As a result, it was determined that the data were not normally distributed ( $p < 0.05$ ). Accordingly, non-parametric tests were used in the analyses. Differences in the scale and sub-dimensions according to independent variables were tested with "Mann Whitney-U" and "Kruskal Wallis" tests. "Tamhane T2" test was used to determine the direction between the groups with a difference. The difference between the groups was interpreted by taking  $\alpha = 0.05$  error level into consideration ( $p < 0.05$ ); the relationship between the perception of success and coach behavior was evaluated with "Spearman Correlation" test.

## **RESULTS**

Descriptive statistics results of the demographic characteristics of the participants are presented in Table 1.

According to the results obtained in Table 1, 58.8% of the participants were male, 76.3% of them had high school or undergraduate education level, 82.4% of them had worked with their coach for 2 years or more, 71.1% of them had a male coach, 87.7% of them had 5 years or more of sports experience, 50% of them had freestyle swimming, 83.9% of them had a medium or good economic level, and 51.8% of them had a diligent coach.

The descriptive statistics of the total scores of the participants from the POSQ-CH, CBS-S and its sub-dimensions are presented in Table 2.

**Table 1.** Descriptive statistics of demographic characteristics of the participants

Variable	Categories	N	f (%)	Variable	Categories	N	f (%)
<b>Gender</b>	Female	47	41.2	<b>Coach gender</b>	Female	33	28.9
	Male	67	58.8		Male	81	71.1
<b>Swimming year</b>	2-4	14	12.3	<b>Education status</b>	College	27	23.7
	≥5	100	87.7		High school/ university	87	76.3
<b>Swimming style</b>	Free	57	50.0	<b>Economic status</b>	Low	2	1.8
	Breaststroke	22	19.3		Medium	49	43.0
	Butterfly	14	12.3		Good	58	50.9
	Backstroke	21	18.4		Very good	5	4.4
<b>Working time with coach (year)</b>	<1	8	7	<b>Coach style</b>	Overly disciplined	36	31.6
	1-2	12	10.5		Good-natured	14	12.3
	2-4	30	26.3		Tense and mobile	5	4.4
	≥4	64	56.1		Diligent	59	51.8
<b>Educational status of mother</b>	College	12	10.5	<b>Educational status of father</b>	College	9	7.9
	High school	44	38.6		High school	44	38.6
	University	44	38.6		University	51	44.7
	Master/Phd	14	12.3		Master/Phd	10	8.8

**Table 2.** Descriptive statistics of the participants' total scores of POSQ-CH, CBS-S and sub-dimensions

Variable	N	TS	Sd	Min	Max
<b>POSQ-CH</b>	114	49.03	7.04	28.00	60.00
<b>GO</b>	114	26.85	3.06	16.00	30.00
<b>EO</b>	114	22.17	5.09	9.00	30.00
<b>CBS-S</b>	114	262.35	35.39	98.00	329.00
<b>PTP</b>	114	40.89	6.67	20.00	49.00
<b>TS</b>	114	50.95	8.66	8.00	56.00
<b>MP</b>	114	28.48	8.58	5.00	35.00
<b>GS</b>	114	36.50	7.19	7.00	42.00
<b>CS</b>	114	44.26	7.61	14.00	49.00
<b>PR</b>	114	37.80	5.63	13.00	42.00
<b>NR</b>	114	23.43	11.17	8.00	56.00

TS: Total Score, Sd: Standart deviation, Min: Minimum, Max: Maximum, POSQ-CH: The Children's Version of the Perception of Success Questionnaire, EO: Ego Orientation, GO: Goal Orientation, CBS-S: Coach Behavior Scale for Sport, PTP: Physical Training And Planning, TS: Technical Skills, MP: Mental Preparation, GS: Goal Setting CS: Competition Strategies, PR: Positive Rapport, NR: Negative Rapport

According to the data obtained in Table 2, the scores belonging to the POSQ-CH scale, which evaluates the success perceptions of the swimmers participating in the study, were found to be 49.03 very high; the EO sub-dimension score was 22.17 and high, and the GO sub-dimension score was 26.85 very high. It was determined that the score of the CBS-S which evaluates the coach behaviors of the athletes, was 262.35 quite high; the PTP score of the sub-dimensions of the scale was 40.89 quite high, the TS score was 50.95 very high, the MP score was 28.48 quite high, the GS score was 36.50 very high, the CS score was 44.26 very high, the PR score was 37.80 very high, and the NR

score was 23.43 low. As a result, it was determined that the achievement perceptions of male and female swimmers between the ages of 14-18 were very high, coach behavior perceptions were quite high and there was no negative coach behavior perception. Since the NR sub-dimension of the scale includes negative statements about the coach, the low total score of the sub-dimension reflects that the athletes have positive thoughts about their coach. The comparison of the total scores of the scale and sub-dimensions of POSQ-CH and CBS-S according to gender is presented in Table 3.

**Table 3.** Comparison of the total scores of POSQ-CH and CBS-S scales and sub-dimensions according to gender

Variable	Categories	N	TS	Sd	U	p
POSQ-CH	Female	47	50.55	7.07	1210.00	<b>0.036*</b>
	Male	67	47.95	6.86		
EO	Female	47	22.47	5.42	1499.50	0.665
	Male	67	21.95	4.86		
GO	Female	47	28.08	2.46	929.00	<b>0.000*</b>
	Male	67	26.00	3.16		
CBS-S	Female	47	25.91	41.69	1327.50	0.155
	Male	67	266.86	29.72		
PTP	Female	47	39.12	6.93	1124.50	<b>0.009*</b>
	Male	67	42.13	6.24		
TS	Female	47	49.59	11.19	1521.00	0.751
	Male	67	51.91	6.23		
MP	Female	47	28.70	9.17	1437.00	0.412
	Male	67	28.32	8.21		
GS	Female	47	36.21	7.46	1426.00	0.382
	Male	67	36.71	7.04		
CS	Female	47	43.80	8.75	1491.50	0.618
	Male	67	44.58	6.75		
PR	Female	47	38.40	6.47	1215.50	<b>0.033*</b>
	Male	67	37.38	4.98		
NR	Female	47	20.06	10.60	995.00	<b>0.001*</b>
	Male	67	25.80	11.03		

\*p<0.05, TS: Total Score, Sd: Standart deviation, Min: Minimum, Max: Maximum, POSQ-CH: The Children's Version of the Perception of Success Questionnaire, EO: Ego Orientation, GO: Goal Orientation, CBS-S: Coach Behavior Scale for Sport, PTP: Physical Training And Planning, TS: Technical Skills, MP: Mental Preparation, GS: Goal Setting CS: Competition Strategies, PR: Positive Rapport, NR: Negative Rapport

In line with the results obtained in Table 3, it was determined that there was a significant difference between the groups according to gender in the POSQ-CH scale and GO sub-dimension score ( $p < 0.05$ ,  $p = 0.036$ ,  $p = 0.000$ ); however, there was no significant difference in the EO sub-dimension score according to gender ( $p > 0.05$ ,  $p = 0.665$ ). It was observed that the significance was in favor of female swimmers in both the POSQ-CH and GO sub-dimensions. When the CBS-S scale score was analyzed according to gender, it was found that there was no difference between the scale scores of male and female swimmers ( $p > 0.05$ ,  $p = 0.155$ ); while there was a significant difference in the PTP, PR and NR sub-dimension scores ( $p < 0.05$ ,  $p = 0.009$ ,  $p = 0.033$ ,  $p = 0.001$ ); while there was no significant difference in TS, MP, GS and CS sub-dimension scores according to gender ( $p > 0.05$ ,  $p = 0.751$ ,  $p = 0.412$ ,  $p = 0.382$ ,  $p = 0.618$ ). The significance in PTP, PR and NR sub-dimensions was found to be in favor of male swimmers in PTP sub-dimension and in favor of female swimmers in PR and NR sub-dimensions.

When the scores of the POSQ-CH scale were compared according to the gender of the coach, it was found that there was a significant difference only in the EO scores ( $p < 0.05$ ,  $p = 0.035$ ). It was concluded that this difference was in favor of the

athletes working with male coaches ( $X_{\text{male}} = 22.72$ ,  $X_{\text{female}} = 20.78$ ). When the scores were compared according to the swimming style, it was found that the mean score of POSQ-CH and the mean score of GO sub-dimension were significantly different in favor of the athletes who swim butterfly style ( $p < 0.05$ ,  $p = 0.001$ ,  $p = 0.000$ ). When the scores were compared according to the type of coach, it was found that there was a significant difference between the CBS-S scale score and sub-dimensions of PTP, TS, GS and PR scores ( $p < 0.05$ ,  $p = 0.001$ ,  $p = 0.005$ ,  $p = 0.005$ ,  $p = 0.005$ ,  $p = 0.006$ ,  $p = 0.000$ ). In line with this result, it was concluded that the scores of CBS-S, PTP, TS and GS were the highest in the "Overly disciplined" coach type, while the PR score was the highest in the "Good-natured" coach type. When the scores were compared according to sport age, it was found that there was a significant difference ( $p < 0.05$ ) in the EO and TS sub-dimensions; EO scores were highest in those with a sport age of "2-4 years" and TS scores were highest in those with a sport age of "5 years and above". Despite these results, when the scores of the athletes were compared according to their economic level, education level and working time with the coach, it was found that there was no significant difference in POSQ-CH, CBS-S and sub-dimensions ( $p > 0.05$ ).

**Table 4.** The relationship between swimmers' perceived coaching behaviors, achievement perceptions and sub-dimensions

	POSQ-CH	GO	EO	CBS-S	PTP	TS	MP	GS	CS	PR
<b>POSQ-CH</b>	1									
<b>GO</b>	,762**	1								
<b>EY</b>	,912**	,459**	1							
<b>CBS-S</b>	-,030	,044	-,047	1						
<b>PTP</b>	,075	,156	,033	,778**	1					
<b>TS</b>	-,092	,036	-,127	,715**	,600**	1				
<b>MP</b>	,017	,093	-0,44	,743**	,529**	,646**	1			
<b>GS</b>	-,129	-,022	-,153	,770**	,569**	,583**	,697**	1		
<b>CS</b>	-,071	,036	-,128	,720**	,460**	,759**	,739**	,750**	1	
<b>PR</b>	,067	,217*	-,039	,691**	,409**	,650**	,655**	,592**	,681**	1
<b>NR</b>	-,161	-,273**	-,038	,019	-,030	-,325**	-,389**	-,227*	-,315**	-,421**

\* $p < 0.05$ , \*\* $p < 0.01$ , POSQ-CH: The Children's Version of the Perception of Success Questionnaire, EO: Ego Orientation, GO: Goal Orientation, CBS-S: Coach Behavior Scale for Sport, PTP: Physical Training And Planning, TS: Technical Skills, MP: Mental Preparation, GS: Goal Setting CS: Competition Strategies, PR: Positive Rapport, NR: Negative Rapport

In the light of the information obtained in Table 4, in which the relationship between the coach behaviors perceived by the swimmers, their perceptions of success and sub-dimensions was examined, it was found that there was no significant relationship between the swimmers' POSQ-CH and CBS-S scores and its sub-dimensions. It was found that there was a positive and low correlation between EO sub-dimension and PR, a negative and low correlation between NR sub-dimension ( $r=0.217$ ,  $r=-0.273$ ). Apart from the level of relationship between the scale

## DISCUSSION

In this study, the perception of success and the level of evaluation of coach behaviors in 14-18 years old swimmers were examined. In addition, the perceptions of success and coach behavior of the swimmers in the relevant age range were examined by comparing them according to gender, sport age, type of coach, duration of working with the coach, swimming style, education and economic status of the athlete. According to the results of the study, it was found that swimmer' perceptions of success and GO sub-dimension scores were very high, and EO sub-dimension scores were high. From this point of view, although it comes to mind that swimmers aged 14-18 are more goal-oriented, it is not correct to infer that athletes are ego or task-oriented in line with this result; because both of these two independent thoughts of success can be high or low; one of them can be low and the other high, and therefore they do not describe the athlete; they show that a certain orientation is dominant (Kazak Cetinkalp, 2006).

In the sub-dimensions of the scale of athletes' evaluation of coaches' behaviors, it was determined that TS, GS, CS, PR score was very high, PTP, MP sub-dimensions were quite high, and NR score was low. Accordingly, it can be inferred that the coaches of 14-18 years old swimmers living in the Aegean region are better at teaching technical skills, goal setting, creating a competition strategy, and exhibiting positive behavior than mental preparation and physical training and planning.

It was determined that the participants' POSQ-CH, EO-GO sub-dimension scores were higher in female athletes; CBS-S scale scores were higher in male athletes and did not differ according to gender. Tanrikulu (2019), in his study

and sub-dimensions, when the correlations with the independent variables that may have an effect on POSQ-CH and CBS-S were examined; it was found that there was no relationship between POSQ-CH and closeness with the captain, communication level with the coach and age variable ( $p>0.05$ ). While there was a significant, positive and moderate correlation between the closeness of the team captain and the CBS-S scores of the athletes ( $p=0,001$ ,  $r=0,417$ ); it was concluded that there was no relationship between age and coach communication level ( $p>0,05$ ).

examining the perceptions of success of elite athletes in the 10-15 age group engaged in taekwondo, judo, and karate sports, reported that the ego orientation of male athletes was higher than that of female athletes, that the perception of success of athletes could increase with an increase in the level of mother education level, and that the success orientation of athletes engaged in the karate branch among the related branches was higher. It can be said that these results are not in parallel with the finding that ego orientation scores were higher in female swimmers in the current study. In addition, the fact that there is a positive relationship between mother's level of education and athletes' perception of success reveals that mothers have an effect on their children's perceptions of success. In the present study, although there was no difference in the scores of POSQ-CH, EO-GO and CBS-S according to gender, it was determined that the scores of PTP, PR and NR sub-dimensions differed according to gender. It is seen that the detected significance is in favor of men in the PTP sub-dimension, while it is in favor of female swimmers in the PR and NR sub-dimensions. When the studies conducted in this context are examined; Gok and Okan (2020), in their study on adult active national athletes from different branches, reported that there was a significant difference between the groups according to the gender variable in the PTP sub-dimension scores and that this difference was in favor of male athletes. Ermis et al. (2017), in a study conducted on adolescent athletes engaged in ball and contact sports, reported that there was a significant difference in the scores of CBS-S, PTP, TS and NR sub-dimensions of the athletes according to gender in favor of males. In line with these results, it can be said that male athletes evaluate coach behavior according to physical

training and planning. In the literature studies, it can be said that different results were obtained with the comparison of achievement perception and coach behavior evaluation scale and sub-dimension scores according to gender. It is thought that the different results are related to the characteristics of the branch that the athlete is engaged in; individual, team sport, collective or non-collective, contact sport, age of the athlete; adolescent or adult, level of sport; amateur or national athlete. In addition, both in the present study and in the literature studies, it was observed that male athletes had higher PTP scores than female athletes. From this point of view, it can be inferred that male athletes think that their coaches offer an adequate training program and that this program contributes to their physical development compared to female athletes. In contrast to these results, Yapar and Serbest (2020), in their study on athletics, reported that in all sub-dimensions of perceived coach behavior, except for the NR sub-dimension, the scores of female athletes were higher than those of male athletes; female athletics had more positive opinions towards the coach than male athletes. Among these results, the findings related to PR and NR sub-dimension overlap with the findings of the current study, and from this point of view, it can be said that coaches approach female athletics and swimmers more moderately and understandingly than males. On the other hand, Koh et al. (2014), in their study with Singaporean athletes, reported that male basketball players had higher scores than females in both PR and NR sub-dimensions. In line with this result and the results of the current study, it can be inferred that individual sport coaches approach female athletes more moderately than male athletes; on the other hand, team sport coaches approach male athletes more moderately than females.

In the current study, when the scale mean scores were examined according to the coach gender variable, it was found that only the mean scores of the EO sub-dimension were significantly different in favor of the athletes who have male coaches. This result is thought to be due to the fact that male coaches give more immediate feedback and comparative feedback to their athletes. In addition to this, the age of the athlete also has an effect on the evaluation of the coach's behavior. In the study conducted by Gok and Okan (2020) on the subject, it was concluded that there was a

positive, low-level significant relationship between the age of the athletes and the PTP score. From this point of view, it can be said that as the age of the athlete increases, the PTP score will also increase. In Torun's (2020) study on elite level judo athletes, the mean scores of athletes' perceptions of success were examined according to age distribution and it was reported that the mean scores of perceptions of success based on age were statistically significantly different; individuals between the ages of 15-17 had the lowest mean EO and individuals between the ages of 18-25 had the highest mean GO. Ego-oriented individuals tend to aim for goals from the outside because they compare themselves with their competitors in every situation. Since such athletes are in a constant state of comparison, they may give up in a very short time and take an easy-going approach. On the other hand, if the athlete has the desire to do better and improve according to his/her past performances without comparing himself/herself with others, this athlete has goal orientation (Torun, 2020). In this direction, according to the results of the related study, it can be inferred that athletes between the ages of 15-17 are task-oriented and athletes between the ages of 18-25 are ego-oriented. These results do not overlap with the 14-18 year old swimmers being goal-oriented in the current study. Therefore, it is thought that ego and goal orientation are related to sport experience and adolescence. In future studies, investigating the relationship of ego-goal orientation with the athlete's experience and the developmental period will support the findings of the literature. In the current study, the fact that the mean score of the GO sub-dimension of the swimmers was higher than the mean score of the EO sub-dimension may be due to the age range of the swimmers participating in the study and the known potential effects of the coaches on the goals of the athletes, setting long-term goals for the athletes instead of instant (short-term) goals. On the other hand, since swimming is an individual sport, the assumption that the goal of the age group athletes may be to prove that they are better than their previous performance, such as "breaking their own record" or "proving that they are better" may also be shown as a reason for the high GO sub-dimension score.

When the scores were compared according to the specialized swimming style, economic level and education level of the athletes, it was found

that there was no significant difference in POSQ-CH and its sub-dimensions. In Karabulut's (2010) study, which obtained parallel results with the current research, it was reported that the anxiety levels and achievement perceptions of fifth grade primary school students did not differ according to their game preferences, game type and economic level. Similarly, in a study conducted by Elmas (2018) on early adolescents participating in sportive recreation activities, it was reported that GO and EO scores did not differ significantly according to sufficient free time and family income level. In the same direction, Basoğlu (2017) reported in his study conducted with the national team players of the men's wrestling national team that there was no significant difference in the mean POSQ-CH of the athletes according to the family economic level. In contrast to these findings, Ozbey and Unal (2020) conducted a study with amateur football players aged 17-34 years and reported that there was a significant difference in the GS scores of participants with different income levels from the sub-dimensions of the CBS-S. According to both the results of the current study and the results of the literature, it can be said that the perception of success does not change according to economic level, and only economic status may affect goal setting. Despite the findings of the current study, there have also been studies reporting that athletes' level of education and sports participation have an effect on their perception of success. Accordingly, Dereceli (2019), in his study on primary school students, reported that the achievement perceptions, task and ego orientations of children who do sports are higher than non-athlete children, and that the sense of responsibility and behaviors of athlete children are more developed. Similar to the results in primary school students, Ekinçi (2018) reported in a study that sportsmanship behaviors and achievement perceptions of secondary school students differed according to various variables and that achievement perception predicted sportsmanship behaviors. In this direction, it can be said that doing sports can change the perception of success by creating behavioral changes in the individual, so there may be a difference in the orientation and perception of success in individuals who do sports and those who do not.

When the scores of the athletes were compared according to the time they worked with

their coaches, it was found that there was no significant difference in the CBS-S and sub-dimensions, but according to the type of coach, there was a significant difference between the CBS-S scale score and sub-dimensions of PTP, TS, GS and PR scores in favor of the "Overly disciplined" coach. Cık (2009), as a result of his research on young basketball players, reported that the perceived coach behavior scores were significantly different according to the duration of working with the coach. In the current study, the fact that there was no difference in the coach behavior scale score according to the duration of working with the coach may be due to the fact that swimming is an individual sport. Because in team sports such as basketball, athletes' perceptions about the coach may also depend on other athletes, so it can be said that the duration of working with the coach in team sports is effective on the perception of success and coach behavior. In individual sports, it is thought that success and coach perception may depend more on the type of coach. In this direction, according to the results of the current research, when the mean scores of the coach perception scale were examined, it was seen that the mean score of the swimmers who had an overly disciplined coach in four sub-dimensions was the highest. From this point of view, it can be inferred that individual athletes who have overly disciplined coaches have high coach perceptions, in other words, they have positive coach perceptions. Another factor affecting coach perception is thought to be the developmental period of the athlete. Regarding the subject, in a study conducted in young people who do sports in different branches, it was found that there was a significant difference in TS, GS, CS and NR sub-dimensions according to age and it was reported that there was a difference in adolescents' perception of their coaches' behaviors towards them (Ermis et al., 2017). In this respect, it is thought that coaches should pay attention to their approach styles to athletes, especially in the adolescent period and adolescence; psychological characteristics and approaches are effective in revealing the physical potential of the athlete. This thesis is supported by Baker et al. (2000), who reported that negative coach behavior is a significant predictor of athlete anxiety, impaired concentration and worry, and that the negative relationship between coach and athlete is effective on athlete anxiety; similarly, Mohd Noor et al.

(2019) reported that negative coach behavior has a negative and serious effect on athletes' motivation.

According to the results of the current study, it was determined that the athletes had the highest mean score in TS and the lowest mean score in NR sub-dimension. When the mean scores of the participants were analyzed according to their sport age, it was seen that the mean scores of young swimmers with a sport age of five years or more were higher than those of athletes who have been swimming for 2-4 years. In the study conducted by Cik (2009) on basketball players, it was reported that there was no significant difference in the sub-dimension scores of CBS-S of participants according to their sport age; however, in the TS sub-dimension, participants with a sport history of 10 years or more had higher mean scores than the others. Based on the findings of both the current study and the literature, it can be inferred that, regardless of the branch, as the athlete's sport age increases, the perception of the coach's technical skill acquisition increases. Considering that technical learning is important in swimming, it can be said that the athlete's perception of the coach's ability to teach technical skills is also important and effective in achieving success. When the relationship between achievement perception and coach behavior evaluation scores in swimmers was examined, it was found that there was no correlation between POSQ-CH scores and CBS-S scores. With this result, coaches' approach to athletes may not have an effect on athletes' perception of success. On the other hand, the fact that there is a relationship between the GO sub-dimension and the PR, NR sub-dimensions can be evaluated with the assumption that athletes' coaches may affect their perception of positive and negative coaching behavior. The correlation between closeness to the captain and CBS-S can be explained by the fact that young swimmers' team captains act as an important bridge between the team members and the coach in terms of communication.

As a result, it was determined that young swimmers had very high perceptions of success and positive perceptions of coach behavior; athletes' perceptions of success differed according to gender and swimming style, and perceptions of coach behavior differed according to coach type; however, perceptions of success and coach behavior did not differ according to the duration of working with the coach, economic level and

education level. It can be said that the behaviors of the coaches as a leader can affect the motivation status of the athletes and accordingly their perception of success; therefore, the coaches should pay attention to their behaviors during training and competitions, especially towards young, adolescent athletes. It is thought that it is important to see the feedbacks given by the athletes against the coaches' behaviors as an opportunity for the athletes in adolescence to gain emotional skills in this period in terms of having a successful athlete identity as well as the development of high-level performance in their future sports life.

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All authors declare no conflicts of interest.

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### **Ethics Statement**

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### **Author Contributions**

Study Design, EKA, TŞ; Data Collection, BCK, EKA; Statistical Analysis, EKA; Data Interpretation, EKA, TŞ; Manuscript Preparation, EKA, RNU; Literature Search, EKA, BCK, TŞ. All authors have read and agreed to the published version of the manuscript.

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