

# Soccer players efficacy belief, CSAI-2C, SCAT perception and success comparison \*

Bariş OZER \*\*, Serdar KOCAEKSI

Anadolu University, Faculty of Sport Sciences, Eskisehir, Turkey.

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\*\* Corresponding author: B. Ozer, e-mail: barisozer@anadolu.edu.tr

## Abstract

The purpose of this study was to compare to relationships anxiety, efficacy beliefs and perception of success that are playing football at 11-13. Youth and Sports Club Soccer Branch of Anadolu University U-13 players were participated in this study. Measurements were applied to athletes two times selection of Anadolu University. Competition State Anxiety Inventory - Child Version-2 (CSAI-2C), Competition Trait Anxiety Inventory-Child Form (SCAT-C), Self-Efficacy (SES), Perception of Success - Children's Version (POSQ-CH) is used to collection data. Descriptive statistics and Pearson Moment Correlation analysis were used to calculate data. Between the first and second measurement after the analysis, SCAT-C and a positive correlation between somatic anxiety ( $r = .465$ ,  $p < 0.01$ ), Scat Self-Efficacy with negative ( $r = -.455$ ,  $p < 0.01$ ), Cognitive SCAT and a positive correlation between anxiety ( $r = .706$ ,  $p < 0.01$ ), Scat and a positive correlation between somatic anxiety ( $r = .722$ ,  $p < 0.01$ ), there was a negative correlation among self-efficacy and SCAT. As a result, there were some significant relationships between competitive state anxiety and state competitive with goal settings.

**Keywords:** Child, football, anxiety, self-efficacy, perceptions of success, competition.

## Futbolcularda Yeterlik İnancı, CSAI-2C, SCAT ve Başarı Algısının Karşılaştırılması

### Özet

Bu araştırmanın amacı, 11-13 yaş arası futbol oynayan çocukların kaygı, yeterlik inançları ve başarı algıları arasındaki ilişkileri karşılaştırmaktır. Araştırmaya, Anadolu Üniversitesi Gençlik Spor Kulübü Futbol Şubesinde oynayan U-13 Takımı sporcuları katılmıştır. Ölçümler Anadolu Üniversitesi Kulübü Futbol seçmelerine katılan çocuklara seçme öncesi ve seçme sonrası olmak üzere 2 kere uygulanmıştır. İlk ölçümler U-13 takımının katıldığı özel bir turnuvada, turnuva başlamadan 1 saat önce uygulanmıştır, 2. Ölçümler ise antrenman öncesi uygulanmıştır. Verilerin toplanmasında; Yarışma Durumluk Kaygı Envanteri - Çocuk Formu-2 (Competitive State Anxiety Inventory - Children Form - 2 / CSAI-2C), Yarışma Sürekli Kaygı Ölçeği-Çocuk Formu (Competition Trait Anxiety Inventory-Child Form / SCAT-C), Öz Yeterlik (Self Efficacy / SES), Başarı Algısı - Çocuk Versiyonu (Perception of Success - Children's Version / POSQ-CH) envanterleri kullanılmıştır. Veriler, Tanımlayıcı istatistikler, Pearson Momentler Korelasyonu analizi ile hesaplanmıştır. Yapılan analiz sonrası ilk ve ikinci ölçüm arası Scat-C ile Bedensel Kaygı arasında pozitif ( $r = .465$ ;  $p < 0.01$ ), Scat ile Kendine Güven arasında negatif ( $r = -.455$ ;  $p < 0.01$ ), Bilişsel Kaygı ile Scat arasında pozitif ( $r = .706$ ;  $p < 0.01$ ), Bedensel Kaygı ile Scat arasında pozitif ( $r = .722$ ;  $p < 0.01$ ), Kendine Güven ile Scat arasında negatif bir korelasyon vardır. Yapılan bu çalışma sonrası çocuk sporcularda kaygı, yeterlik inancı ve başarı algısı arasında bazı korelasyonel ilişkiler olduğu görülmüştür.

**Anahtar Kelimeler:** Futbol, kaygı, öz yeterlik, başarı algısı, yarışma.

## INTRODUCTION

Childhood years are the most rapidly developing years of human life. In these years, the base for physical, mental, social and emotional development is built. A child tries to know about his

or her environment, understand relations in his or her environment by oneself, obtain a viewpoint about events and interpret on these events. For children within the period of development, sports and physical activity generally contribute to

children's mental and physical development. In children doing sports, their coordination develops, their awareness of body increases, their capacity of concentration improves, their responsibilities and self-confidence increase. In addition to all these, children participate in intensive training programs at tender ages and regard winning as a first goal with high performance expectations, which causes them to have anxiety experiences. Researches on sport psychology reveal the factors leading to stress as such: tiredness at high level, high expectations of other persons, atychiphobia or fear of failure, importance of competition, excessive value of results, and fear of negative evaluation. Spielberger stated that an anxiety experience developed from stress when defining stress. However, he generally described anxiety in sports environment as a state anxiety (11). In young sportsmen there are many factors which affect an anxiety level. It is possible to classify them under headings "social values", "structural characteristics of child sports" and "effect of family" (6). Some individuals are always uneasy and unhappy. Without any dependence on dangers directly come from environments, this type of anxiety results from the bottom of one's heart. Since an individual thinks that his or her self values are threatened or interprets his or her condition as one leading to stress, the person feels anxious. This is called "Trait Anxiety". Trait anxiety is fixed and generally described as a personal characteristic (6). Sports and physical activity give significant opportunities for children's physical development, psychological development and social interaction. But many children give up sports after a certain age due to their anxiety and stress experiences at high level led in young ages by a competitive environment. In order that children are involved in sports, any relation of anxiety with performance needs to be revealed and described. In youth sports, any evaluation of anxiety is obtained with the measurement of state and trait anxiety. State anxiety is a sudden and temporary situation summarized as fear and tension, and a situation of trait anxiety in a sports environment. On the other hand, trait anxiety is dealt as a personal characteristic, and a more permanent, emotional situation (4). State can be said to have three important dimensions of competition anxiety in this way; physical anxiety, physiological and emotional aspects of anxiety. It is directly related with physiological living creatures. Heart rate increases, pupils enlarge and physiological symptoms occur. Cognitive state anxiety is a cognitive component of state anxiety accompanied

by negative self-evaluation and fear threatening self-anxiety. Self-confidence is a component which deals with the change in self-confidence level of a sportsman based on changing cognitive and physical anxiety (4).

Self efficacy was given in the social-cognitive theory by Bandura for the first time. According to Bandura, self efficacy expectations refer to the control of personal act or tool. Self efficacy is a judgement about how successful an individual will be to overcome with difficult situations in future. This one is an individual's self-perception about the capacity for succeeding a certain activity and coping with different conditions. According to Bandura, it is not only enough to have necessary skills for success; success also requires using these skills in an efficient and reliable way (2). Football is a sports branch which requires performance. Some researches confirm that there is a strong relation between self-efficacy levels and performance to the social-cognitive theory. Individuals, who have high self-efficacy points, play important roles in determining performance in many fields such as solving problems, reaching goals, overcoming stress (14). Bandura's opinion suggests that it is not only enough to have necessary skills for success; success also requires using these skills in an efficient and reliable way (2).

According to Nicholas and Duda, the descriptive characteristic of success motivation is a way of perceiving oneself in terms of capacities. Also, a sportsman makes a judgement by comparing his or her own success or ability with others (16). In recent years, another dimension focusing on the social – cognitive theory is a success-target theory in a sports and physical activity environment (8). Many perspectives of success motivation included in sport psychology are based on cognitive judgements, capability and efficacy perceptions. Nicholas and Duda's approach also focuses on cognitive items (20). Researches on target tendency show that there are two independent ideas for success. These are duty-oriented targets and ego-oriented targets (17). Duty-oriented sportsmen support expertise strategies and concentrate on reference-criteria for a given success. These sportsmen believe in skill development and intensive training. They avoid from normative comparisons with their peers consciously. Also, they build their perceptions of success on their personal development (18). An individual is skillful and satisfied with being involved in sports. The better an opponent is, the

more important their self-development is (17). When they are compared in difficulties or unfaillures, they tend to display and sustain internal-motivational behaviors. On contrary to this, ego-oriented sportsmen focus on external criteria to remark success. They believe in fortune and social success criteria (18). When they take advantages over others, they become happy, and they are pleased when hearing the words "the best". Ego-oriented sportsmen become unhappy and unwilling when they feel that they cannot success (17). For ego-oriented sportsmen, the perceived capability is more important than intensive work and effort. These sportsmen tend not to display internal-motivational behaviors in relation to difficulties and unfaillures. Ego-oriented sportsmen have a tendency to use unsporting advantages in order to accomplish (18). Of these two target tendencies, both are high or low; one of them is low or one of them is high. A sportsman tends to skills and duties at some degrees; may be willing to sustain the event at some degrees. Here, the target profile may cause a person to display different behavior forms in a sports environment and affect the reason for participating in sports (8).

## MATERIAL & METHOD

In this research the child footballers from the U-13 team at the Football Branch of Youth Sports Club in Anadolu University participated.

### Data Collection Tools:

Competitive State Anxiety Inventory - Children Form - 2 (CSAI-2C) : The Competitive State Anxiety Inventory - Children Form - 2 (CSAI-2C), a multi-dimensional measurement of sports-specific state anxiety developed by Martens et al. (1990) to estimate state anxiety levels of sportsmen in a competitive environment was re-arranged for children aged between 10 and 12. There are 15 question items in this scale. According to the multi-dimensional competition anxiety model, there are three sub-scales including cognitive anxiety, physical anxiety and self-confidence. The inventory was translated into Turkish by Koruç and Yılmaz and put into practice (12). Competition Trait Anxiety Inventory-Child Form (SCAT-C): The Competition Trait Anxiety Inventory-Child Form (SCAT-C) developed by Martens, Vealey and Burton to measure anxiety levels of sportsmen in a competitive environment consists of 15 items.

Evaluation is done using a triple scale. The scale was adapted to Turkish by Koruç and Yılmaz (13). Self-Efficacy Scale (SES): The Self-Efficacy Scale which was developed for measuring individuals' beliefs in their capacities by Riggs, Warka, Babasa, Betancourt and Hooker. The scale adapted to Turkish by Öcel consists of 10 items in total. The subjects use a five-step scale to inform about how they participate statements mentioned in items, and only an efficacy point is obtained by adding numerical values signed for items (9). Perception of Success Inventory - Children's Version (POSQ-CH): The scale developed by Roberts, Treasure and Balague (1998) also consists of 12 items including six tendencies for duty and six tendencies for ego whichin judgements are done in five evaluation steps, and involves two sub-scales. The validity and reliability test for the inventory was performed on a sport group aged between 11-15 by Çetinkalp Kazak (3).

Data Collection; the first measurements were done in a special tournament U-13 team joined an hour before starting the tournament. The second measurements were applied before the training. Data Analysis; in evaluation of research data, the Descriptive statistics, the Pearson Moment Correlation Analysis were used.

## RESULTS

According to the Table 1; there is a positive correlation between Scat (1) and Physical Anxiety (1), ( $r=,465$ ;  $p<0.01$ ), a negative correlation between Scat (1) and Self-Confidence (1) ( $r= -,455$ ;  $p<0.01$ ), a negative correlation between Cognitive Anxiety (1) and Duty Tendency (1) ( $r= -,348$ ;  $p<0.05$ ), a positive correlation between Efficacy Belief (1) and Ego Tendency (2) ( $r= ,333$ ;  $p<0.05$ ), a positive correlation between Efficacy Belief (1) and Duty Tendency (2) ( $r= ,369$ ;  $p<0.05$ ), a positive correlation between Cognitive Anxiety (2) and Scat (2) ( $r= ,706$ ;  $p<0.01$ ), a positive correlation between Physical Anxiety (2) and Scat (2) ( $r= ,722$ ;  $p<0.01$ ), a negative correlation between Self-Confidence (2) and Scat (2) ( $r= -,719$ ;  $p<0.01$ ), a positive correlation between Efficacy Belief (2) and Self-Confidence (2) ( $r= ,318$ ;  $p<0.05$ ), a positive correlation between Ego Tendency (2) and Efficacy Belief (2) ( $r= ,355$ ;  $p<0.05$ ), a positive correlation between Duty Tendency (2) and Efficacy Belief (2) ( $r= ,375$ ;  $p<0.05$ ), a positive correlation between Duty Tendency (2) and Ego Tendency (2) ( $r= ,706$ ;  $p<0.01$ ).

**Table 1.** Football players' anxiety, efficacy belief and perception scores own success correlation results.

N=41	1	2	3	4	5	6	7	8	9	10	11	12	13
1-Scat (1)													
2- Cognitive Anxiety (1)	,237												
3- Somatic Anxiety (1)	,465**	,588**											
4- Self-Confidence(1)	-,455**	-,160	-,021										
5- Efficacy (1)	-,022	-,148	-,023	,148									
6-Ego(1)	,079	-,282	-,147	-,043	,135								
7-Task(1)	-,042	-,347*	-,239	,098	,091	,812**							
8-Scat (2)	,360*	-,004	,096	-,070	,032	,242	,163						
9- Cognitive Anxiety (2)	,269	,044	,122	-,196	-,051	-,004	-,082	,706**					
10- Somatic Anxiety (2)	,166	,154	,271	-,071	,116	,203	,139	,722**	,514**				
11- Self-Confidence(2)	-,259	-,049	-,070	,288	,069	-,214	-,114	-,719**	-,535**	-,595**			
12- Efficacy (2)	-,095	-,088	-,205	,073	-,068	-,193	-,160	-,213	-,287	-,267	,318*		
13-Ego(2)	,032	-,089	-,008	-,068	,333*	,029	,030	,092	-,103	,003	,032	,355*	
14- Task (2)	-,084	,020	,053	,120	,369*	-,082	-,022	-,070	-,270	-,097	,214	,375*	,706**

**DISCUSSION**

In Yardım et al.'s research dealing with the relation between trait and state anxiety levels in children doing sports, the findings suggest that there is a meaningfully positive relation between scat-c and physical anxiety from the sub-dimensions of competitive state anxiety, that there is a negative relation between self-confidence and scat-c, which is directly proportional with our study. Vealey's study clarifies that there is a significantly negative relation between trait competitive anxiety and self-confidence, which is not statistically different from our findings (2). Competition anxiety is a special process of anxiety caused by a competitive environment. It can be also described as a tendency for worry and uneasiness in a competition due to lossing or an avoidance motive from lossing (23). Trait competition anxiety is a tendency for perceiving pressure of a competitive environment and giving reactions with fear and tension in this environment. It is a feeling of tension, anxiety experienced in each competitive environment (1). Benefiting from other results in our study, there is a positive relation between SCAT-C and physical anxiety at the .01 rate, which is considered to result from physical events such as heart rate, pupil, etc. during a competition since our sample group is included in an environment based on competition throughout their lives for the first time.

Passer made a survey of the reasons of trait anxiety in young male footballers. As a result of his study, players who have high trait competition

anxiety, have low self-respect, negative expectations about their personal performances and beliefs in being criticized by others continuously and negatively. The research data show that children having high trait competition anxiety experience a fear of unfailure and a worry of being criticized by others in a negative way (13).

Among the statistical results of studies analyzing the comparisons of anxiety levels before and after a competition in national team female players of rhythmic gymnastics by Koruç et al., a decline is observed in their self-confidence in parallel with high cognitive and physical anxiety before a competition. Our study's first measurements are parallel with Koruç et al.'s study. In our study's second measurements, an increase is followed in their self-confidence points while a decrease is observed in cognitive anxiety. A rise occurs in physical anxiety at the least.

Many researches reveal that there is an increase in cognitive and physical anxiety points of sportsmen before a competition, in parallel to this, a decrease in self-confidence points. When we consider that players in our sample attend in an environment based on a serious competition for the first time, an increase in physical anxiety points during the second measurements can be regarded as a lack of experience.

After Aşçı and Gökmen examine the relation between competition anxiety, success, sport experience and athletic efficacy in female handball players in their study, they especially reach a

conclusion that there is not a significant relation between sport experience and anxiety, however, there are many researches supporting that sportsmen having more sport experience have low points in competition anxiety due to sport experience, sportsmen having less sport experience have high points in competition anxiety. The results from experienced parachutists by Fenz and Epstein, from experienced male gymnasts by Nahoney and Avener, from wrestlers by Highlen and Bennet indicate that experienced sportsmen have lower points of competition anxiety (1).

Kim Sim asserts in his study that duty tendency provides predictions for state, cognitive anxiety, that individuals holding low duty tendency have high state and cognitive anxiety levels (5). Our study explains that there is a negative-way relation between cognitive anxiety and duty tendency. A sportsman having duty tendency is capable and satisfied for being a part of sports. The person gives importance to one's opponent, and the more one increases one's development capacity the better one's opponent is (17). Cognitive anxiety occurs due to a sportsman's fears threatening self-concept and criticizing one negatively (4). The reason for the inverse relation between cognitive anxiety and duty tendency is that a sportsman may judge himself or herself in some competitions positively and in some competitions negatively, he or she believes that one may use his or her sports experience against one's own opponents in next years by taking advantages of a hard nut to crack.

In addition to duty and ego tendencies, Nicholls discussed the perception of capability as a distinctive characteristic of success motivation, focusing on the target-oriented nature of success behavior. He stated that duty and ego tendencies are related with a personal manner of judgement for an individual's capability levels. When we consider the findings of our study, there is a significantly positive correlation between duty and ego tendency points from the sub-dimensions of perception of success during the first and second measurements. Duty-oriented sportsmen are person-references in skill development, new skill learning, competence showing at duty and hard-work. Ego-oriented sportsmen focus on proving their superior abilities and have an idea "I did it" (10). Researches on a Turkish person's individuality and collective aspects suggest that Turkish culture has both individuality and collective tendencies (15). We can interpret the statistical results of the perceptual dimension of

success in our study as such; the points of duty and ego tendencies are significant in the first and second measurements, because individuals are willing to learn skills, fulfill their own duties and achieve in practising their learning skills during their developments when they are children, and they want to prove themselves against individuals at their own age group by performing their duties.

Carpenter and Yates (3) note that amateur footballers' duty tendency levels are higher rather than semi-professional footballers. This is parallel with the findings of our study. Within Üngür' studies (21) on amateur and professional footballers, higher scores were obtained in amateur footballers' target-oriented profile averages and professional footballers' duty-oriented ones.

As parallel with many researches, our study indicates that the reason for a positive relation between SCAT-C and physical anxiety is that our sample group participates in a competition environment based on competition for the first time during their lives, the reason for an inverse relation between cognitive anxiety and duty tendency is that a sportsman believes in himself that he will succeed in a given duty in some competitions and will not complete it in some competitions, that he will use sports experience against other opponents by benefiting from his hard experiences with an opponent in next years. Children's willingness to learn skills, perform their duties, reach goals while practicing their skills and prove themselves against their peers at their development stages leads to a significant relation between points of duty and ego tendencies during the first and second measurements.

In conclusion, when making literature reviews, as parallel with many researches, our study also indicates that there is a positive correlation between scat-c and physical anxiety, an inverse correlation between cognitive anxiety and duty tendency and a significantly positive correlation between duty and ego tendencies. Towards this study, some correlational relations are observed in anxiety, belief of efficacy and perception of success in child sportsmen. These correlational relations provide a basis for following different studies about similar issues.

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